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AUSTRALIA'S DEFENCE
AMERICA'S CUP 1987

HOLDEN

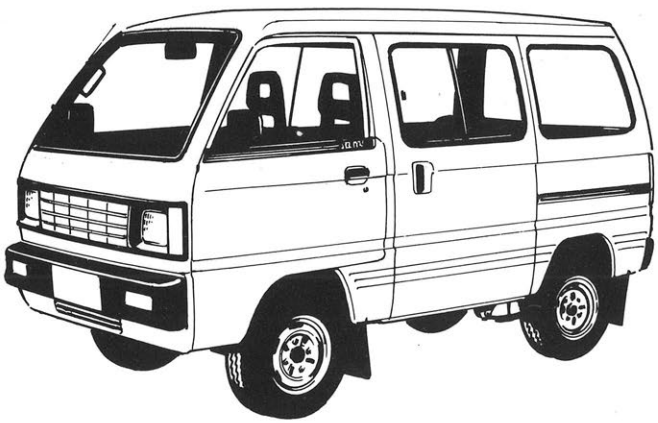
SCURRY

OWNER MANUAL

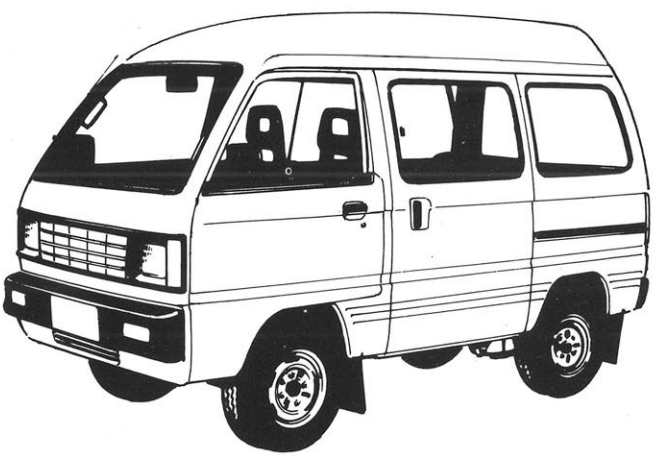
NB SERIES

This owner manual applies to the following models of the HOLDEN SCURRY NB series:

8NS05 (2 Seats)
8NT05 (4 Seats)



8NT75 (4 Seats)



This vehicle may not comply with standards or regulations of other countries. Before attempting to register this vehicle in any other country, check all applicable regulations and make any necessary modifications.

GMH NUMBER: VS50708

FOREWORD

We thank you for choosing HOLDEN 'Scurry'.

You will find in this Owner Manual the basic information necessary for the proper use, care and maintenance of your new vehicle.

This manual should be considered a permanent part of this vehicle. It should stay with the vehicle when sold to provide the next owner with important operating, safety and maintenance information.

Please note, if any lubricants and additives specified in this manual are not available in Australia you should consult your HOLDEN Dealer or the Scurry Service Manual for the recommended equivalents.

GENERAL MOTORS–
HOLDEN'S SALES PTY. LTD.

IMPORTANT NOTICE

Please read this manual and follow its instructions carefully.
To emphasize special information the words WARNING, CAUTION and NOTE carry special meanings and should be carefully understood.

WARNING:
The personal safety of the driver or occupant(s) may be involved. Disregarding this information could result in their injury.
CAUTION:
These instructions point out special service procedures or precautions that must be followed to avoid damaging the vehicle.
NOTE:
Special information to make maintenance easier or important instructions clearer.

Copying, quoting or reproducing any part of this manual is not permitted without explicit approval by GENERAL MOTORS-HOLDEN'S SALES PTY. LTD.

Please note that this manual applies to all models and all specifications for all respective destinations and explains all equipments including options available. Therefore, your model may have different standard features than shown in this manual.

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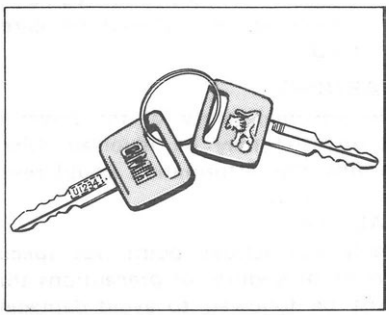
INFORMATION BEFORE DRIVING

KEY



This vehicle comes equipped with a pair of identical keys. Keep the spare key in a safe place. The key can operate the following:

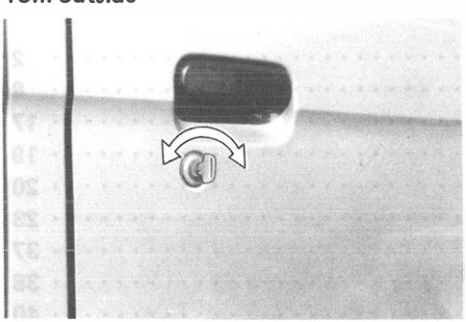
- Ignition switch
- Door locks
- Fuel tank cap lock
- Hatchback lid lock

The keys are stamped with an identifying number. This number is used when making replacement keys. Please write your key number in the box provided for your future reference.

KEY NUMBER:

DOOR LOCK

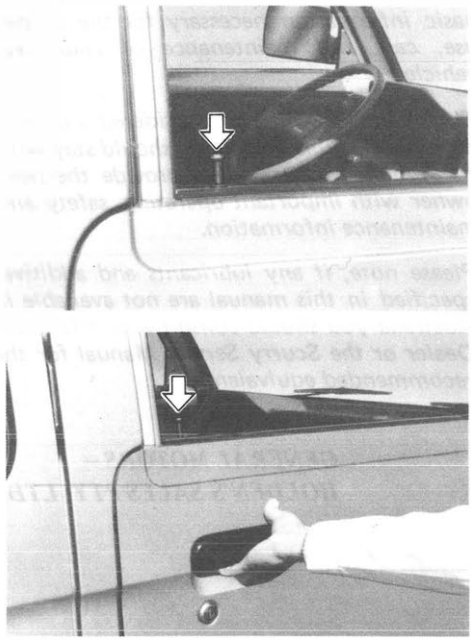
From outside



To lock the right door, insert the key and turn it clockwise. To unlock the door, turn the key counterclockwise.

To lock the left door, insert the key and turn it counterclockwise. To unlock the door, turn the key clockwise.

From inside

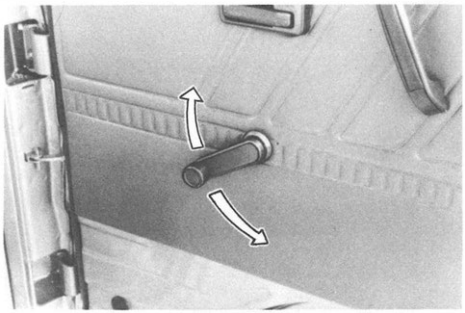


To lock the door, move the lock lever in the direction of arrow. To unlock it, move the lock lever in opposite direction.

WARNING:
Always lock the doors when driving. Locking the doors prevents inadvertent opening of the door by movement of the inside handle.

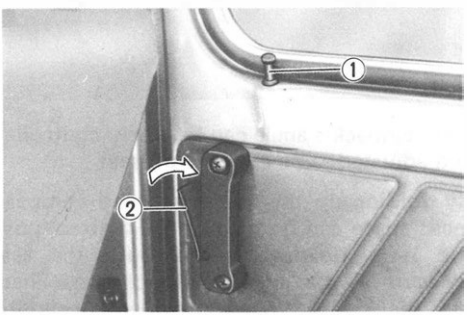
NOTE:
The door may be locked from outside without the key. To do this, first, engage the inside lock lever with the door opened, lift up the outside door handle and close the door. Be careful not to lock the key inside the vehicle.

OPENING AND CLOSING DOOR WINDOWS



Turn the regulator handle clockwise to raise the right windows and counterclockwise to raise the left windows. Reverse the turning direction to lower the window.

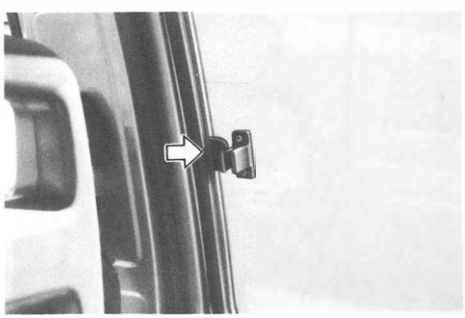
REAR DOOR



To open the rear door, pull out the lock knob ① upward, grip the handle lever ② and slide it backward with force.

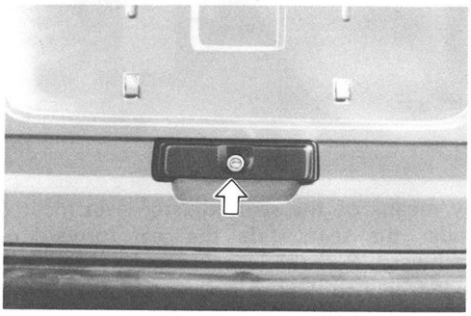
To lock, simply close door and push in the lock knob.

SLIDING WINDOW



To open the sliding window, hold the lock lever indicated by arrow to push the window backward at the same time until reaching any desired open position.

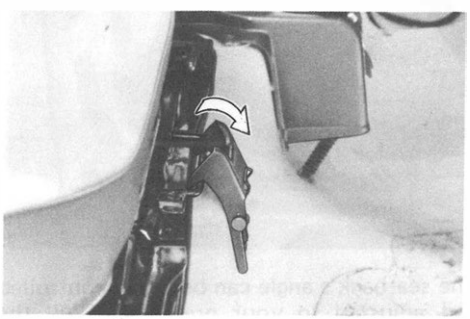
HATCHBACK LID LOCK



The hatchback lid is locked with the ignition key. To lock the hatchback lid, turn the key clockwise. After unlocking, open the hatchback lid by pushing in the lock button and lifting up the hatchback lid.

SEAT

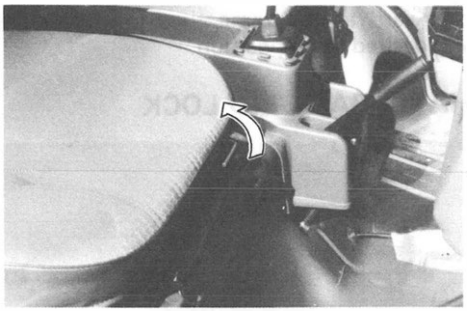
Front seat



The front seat is fixed, and then latched, to the seat frame with the projections of the seat inserted into the holes of the frame as shown in the photo.

The front seat and seatback are in an unseparable unit. When inspecting the engine room, push the seat fully backward as it is folded and make sure to fix it securely.

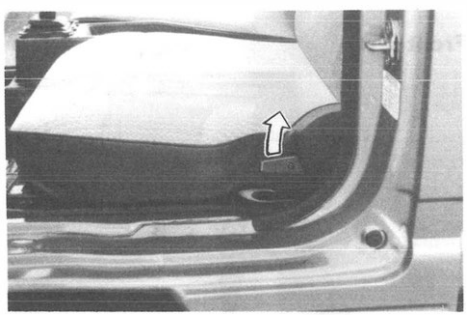
Front seat adjustment (Sliding seat type)



By means of the seat adjuster lever located under the seat, slide the seat forward or backward. Pull the lever up and the seat will slide freely to the position you desire.

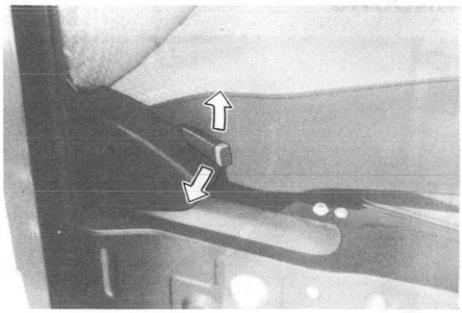
WARNING: Do not adjust the driver's seat while driving. The seat may suddenly jerk forward or backward, which could result in loss of control.

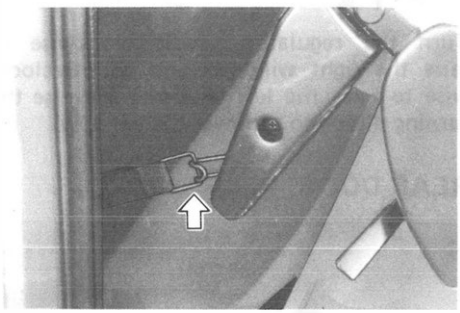
Reclining seat (Where fitted)



The seatback's angle can be freely controlled and adjusted to your preference. Pull the lever and the seatback moves freely; release it and the seatback instantly locks in place. The seatback can also be folded forward.

Rear seat (Where fitted)



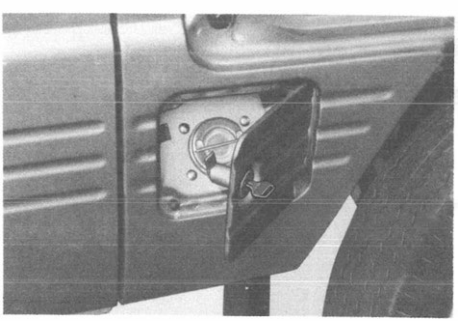


The seatback's angle can be freely controlled and adjusted same as the front seat.

By folding up the rear seat, load compartment space can be increased. To do so, push the lever downward and push the seat forward to the horizontal position. Then, use the hooked band provided inside the center pillar to securely fix the rear seat in position.

FUEL FILLER

FUEL TANK CAPACITY	**37 L (9.8/8.1 US/Imp gal)**



The fuel filler lid is located on the right side of the vehicle. For your protection the tank can be locked. To unlock the lid, turn the key clockwise. To lock, turn the key counter-clockwise.

FUEL REQUIREMENTS

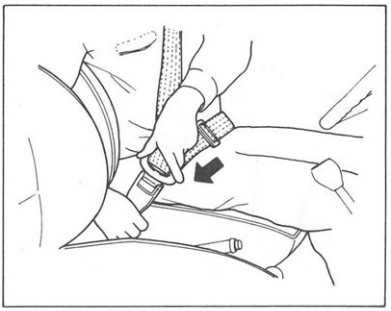
If your vehicle is not fitted with a restrictor in the fuel filler pipe then you may use leaded or unleaded gasoline with an octane number (RON) of 85 or higher. Note, it is preferable to use unleaded gasoline.

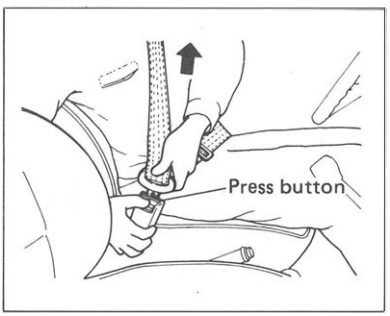
If your vehicle is fitted with a restrictor in the fuel filler pipe then you **must** use unleaded gasoline with an octane number (RON) of 85 or higher. These vehicles are also identified by a label attached near the fuel filler pipe that states: "UNLEADED FUEL ONLY"

CATUION:
Take care not to spill gasoline during refueling. Gasolines containing alcohol can cause paint damage.

CAUTION:
The fuel tank has an air space to allow for fuel expansion in hot weather. If fuel is continued to be added after the filler nozzle has automatically shut off or an initial blowback occurs, the air chamber will become full. Exposure to heat when fully fuelled in this manner will result in leakage due to fuel expansion. To prevent such fuel leakage, stop filling after the filler nozzle has automatically shut off, or when using an alternative non automatic system, initial vent blowback occurs.

FRONT SEAT BELTS (Automatic retracting belts)





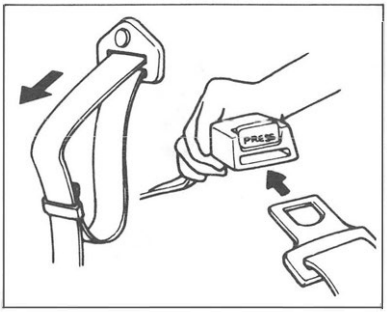
Draw the buckle tongue attached to the seat belt across the body and press it into the buckle catch until a "click" is heard. The buckle catch unit is located on a stalk between the seat and the hand brake.

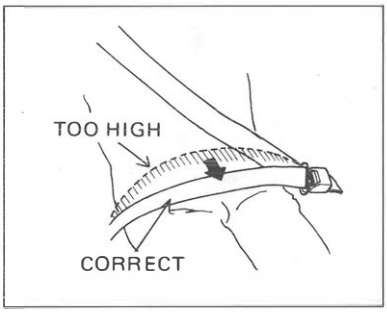
Adjustment of the belt length is very important. To adjust the lap belt and at the same time check that the buckle has locked correctly, pull upwards on the shoulder strap as if attempting to pull the buckle apart, until the lap belt fits tightly.

The length of the diagonal shoulder strap adjusts itself to allow freedom of movement. To unfasten the belt, press the release button on the buckle catch unit.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

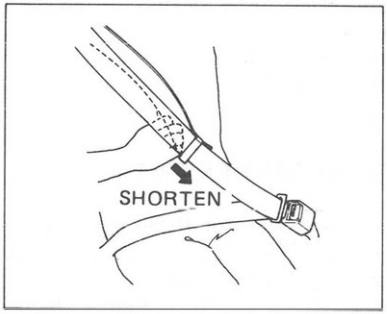
REAR SEAT BELTS (3-point non retractor type)

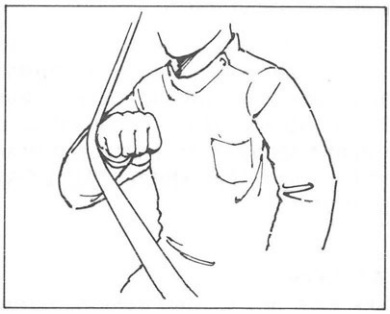




To fasten the seat belts, insert the tongue end into the buckle. A click is heard when the tongue locks into the buckle correctly. Make certain the connection is secure without any twists or misalignment around the seat. If the belt is not long enough, take the belt at the shoulder anchor point and pull it in the direction of the arrow as illustrated.

Adjust the lap portion of the belt to the proper position. To reduce the risk that you might slip under the belt in an accident, make sure that the lap portion fits you snugly as low as possible on your lap as illustrated and not up on your waist.





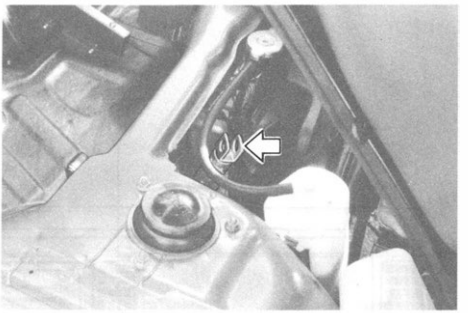
Next, adjust the shoulder portion of the belt so that it is a little slack. To shorten the belt, pull the inner free end in the direction of the arrow as illustrated. The shoulder portion should have just enough slack, so that a clenched fist can be inserted between the belt and your chest as also illustrated. Too much slack at the shoulder portion makes the belt ineffective in accidents. The shoulder portion should never pass under your relevant arm.

To unfasten the belt, press the release button on the buckle and the tongue will disengage from the buckle. After use, always rehang the belt on the hook provided near the upper anchorage point.

WARNING:

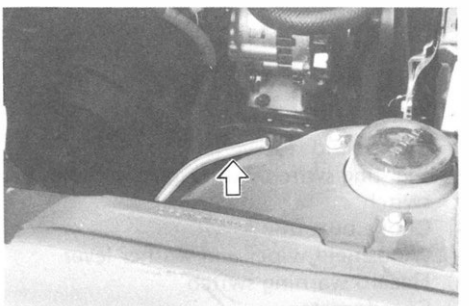
- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.
- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each seat belt assembly must only be used by one occupant: it is dangerous to put a belt around a child being carried on the occupant's lap.
- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

Housing of the jack and the jack handle



The jack is stored under the left side seat and can be taken out after opening the left side seat.

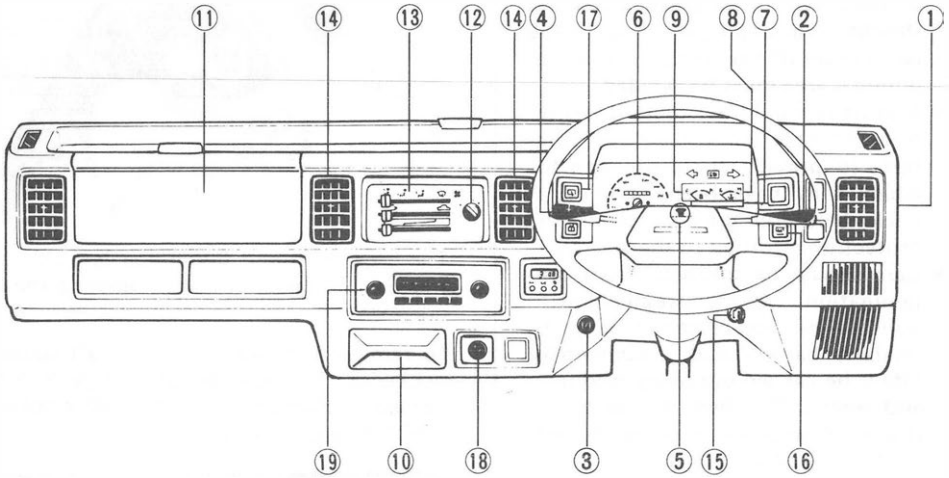
To remove the jack, turn its shaft counterclockwise. To store the jack, place it in the storage bracket and turn the shaft clockwise until the jack is fixed firmly.



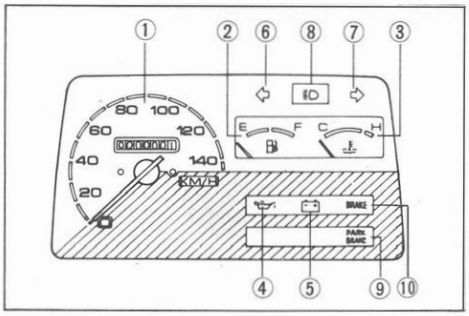
The jack handle is stored under the right side seat and can be taken out after opening the right side seat.

CAUTION:
When stowing the jack handle, make sure to cramp it securely.

INSTRUMENTS AND CONTROLS



① Brake fluid reserve tank
② Lighting switch/Turn signal and dimmer switch
③ Choke button
④ Windshield wiper and washer lever
⑤ Hazard warning switch
⑥ Speedometer
⑦ Warning and indicator lights
⑧ Temperature gauge
⑨ Fuel gauge
⑩ Ashtray
⑪ Glove box
⑫ Blower switch
⑬ Heater control panel
⑭ Center ventilator
⑮ Ignition switch
⑯ Rear defroster switch (Where fitted)
⑰ Rear wiper switch
⑱ Cigarette lighter
⑲ Radio

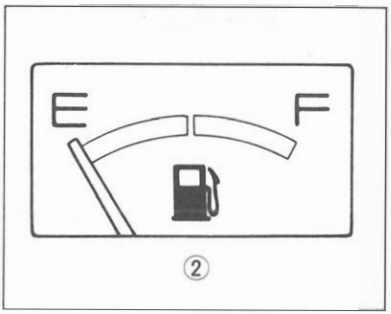


SPEEDOMETER ① :

The speedometer indicates running speed in km/h. The odometer records the total distance the vehicle has been driven.

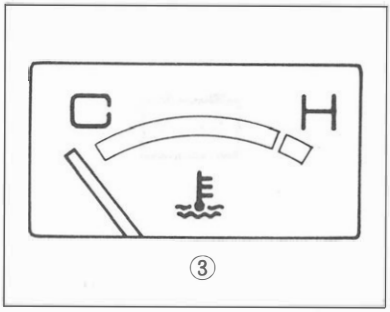
CAUTION: Watch your mileage and check the maintenance schedule regularly against required services.

FUEL GAUGE ② :



When the ignition switch is on, this gauge indicates the amount of gasoline in the tank. "F" stands for full and "E" means empty.

WATER TEMPERATURE GAUGE ③ :

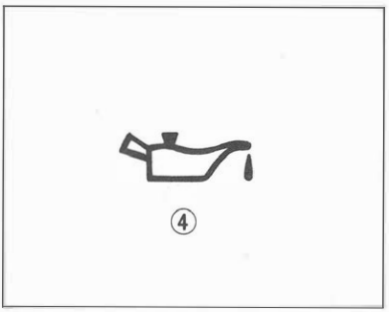


The engine coolant temperature is indicated by this gauge with the ignition switch turned on. Under normal driving conditions, the indicator should stay within the normal, acceptable temperature range shown by the line between "H" and "C." If the indicator exceeds this range and veers toward "H," overheating is indicated.

CAUTION:
Do not continue driving with the engine overheated.

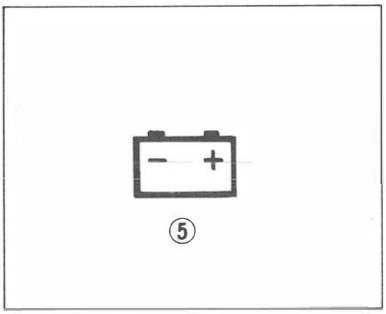
INDICATOR AND PILOT LIGHT

Oil presure light ④ :



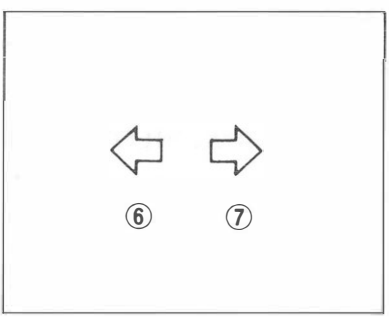
This light comes on when the ignition switch is turned on, and goes off when the engine is started. However, it will remain on if something goes wrong with the engine lubrication system. If this occurs, the lubrication system should be inspected immediately by your HOLDEN dealer.

Charging light ⑤ :



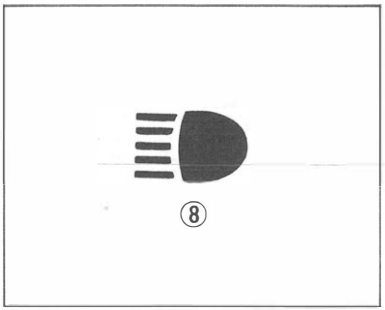
This light comes on when the ignition switch is turned on, and goes off when the engine is started. If it remains on, there is something wrong with the battery charging system. If this occurs, the charging system should be inspected immediately by your HOLDEN dealer.

Turn signal pilot light ⑥ & ⑦ :



This light flashes together with the turn signal light when the turn signal is switched on. When the light on the left side flashes, light ⑥ flashes, and when the light on the right side flashes, light ⑦ flashes.

High beam indicator light ⑧ :

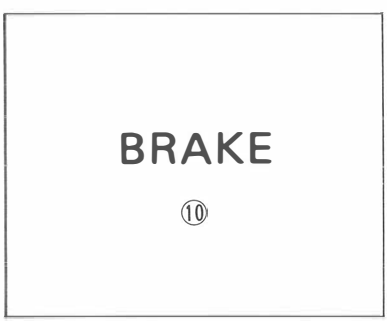


This light comes on when the headlight high beams are turned on. It does not come on when the headlights are on low beam.

Parking brake indicator light ⑨ :

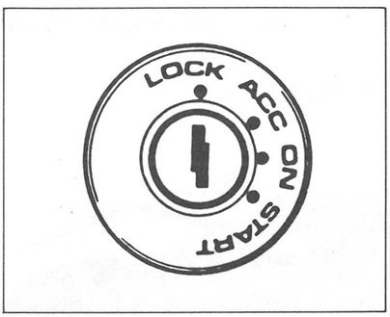
This light comes on when the parking brake is not released and the ignition switch is in the "ON" position.

Brake fluid level warning light ⑩ :



This light comes on when the ignition switch is turned on, and goes off when the engine is started. However, it will remain on if the brake fluid level in the reservoir is low and requires replenishment. If the light still remains on or soon comes on even after replenishment, the brake system should be inspected immediately by your HOLDEN dealer.

IGNITION SWITCH



LOCK

Normal parking position. Accessories and engine are off. This position locks the ignition and steering when the key is removed. The key can be removed only at this position. To release the steering lock, insert the key into the switch and turn it once to "ACC" or other positions. If you have trouble turning the key to unlock the steering, try to turn the steering slightly to the right or to the left while twisting the key clockwise.

ACC

Accessories such as the radio operate, but the engine is off.

ON

This is the position at which the engine is ready to turn while all electrical systems are set.

START

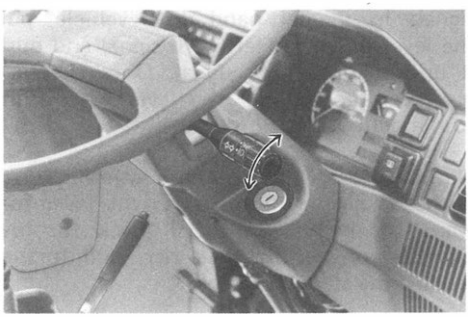
This is the position for starting the engine by the starter motor. The key should be released from this position as soon as the engine starts.

CAUTION:

(1) Do not turn the starter for more than five seconds at a time. If the engine does not start, wait at least five to ten seconds before turning it again. If the engine still does not start after several attempts, check the fuel and ignition system, or consult your HOLDEN dealer.

(2) Do not leave the switch at the ON position for a prolonged period unless the engine is running. Otherwise, the battery will be discharged.

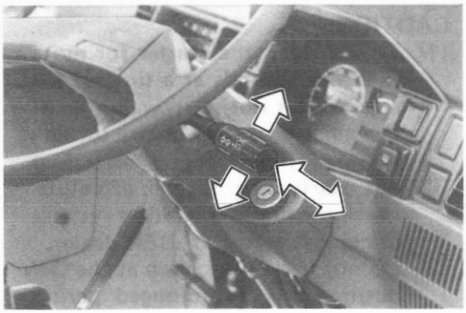
LIGHTS CONTROL LEVER



The switch lever is located on the right side of the steering column in the right-hand drive vehicle, and on the left side of the steering column in the left-hand drive vehicle. Operate the lever as follows:

Lighting operation:

There are three positions. The OFF position turns all the lights off; the middle position turns on the front parking lights, taillights, license-plate light, and dashboard meter light but not the headlights; the other position turns on the headlights.



Turn signal operation:
With the ignition switch in the "ON" position, move the lever up or down, as shown, for directional signals. In the right-hand drive vehicle, push the lever up for left turn signal and pull it down for right turn signal. In the left-hand drive vehicle, pull the lever down for left turn signal and push it up for right turn signal. Once the turn has been completed, the lever will return to the neutral position.

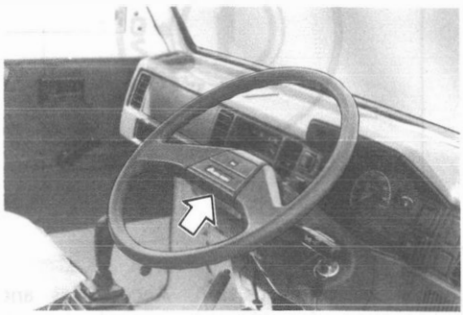
Dimmer/Headlight flasher operation:
With the headlights on, push the lever forward for high beams. Pull back for low beams. For headlight flasher, pull further toward the steering wheel.

WINDSHIELD WIPER AND WASHER LEVER

1. To operate the wipers, turn the wiper switch lever which has one or two speed positions. In the first position "LO", the wiper blades operate at low speed and in the second position "HI" at high speed.
2. Window washer fluid will spray out when the switch lever is pulled toward you.

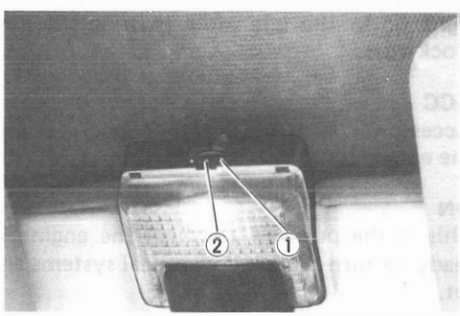
CAUTION:
(1) Release the switch lever when window washer fluid ceases to come out. The motor will be damaged if the washer lever is operated when there is no window washer fluid.
(2) The windshield and the wiper blades will be damaged if dirt is attempted to be removed from the dry windshield with the wipers. Make sure always to wet the windshield with the washer fluid before operating the wipers.

HORN BUTTON



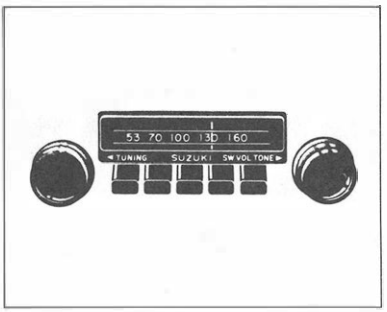
The horn will sound when the horn button is pressed regardless of the ignition switch position.

INTERIOR LIGHT SWITCH



The door switch is not equipped.
①: ON position
②: OFF position

AM RADIO

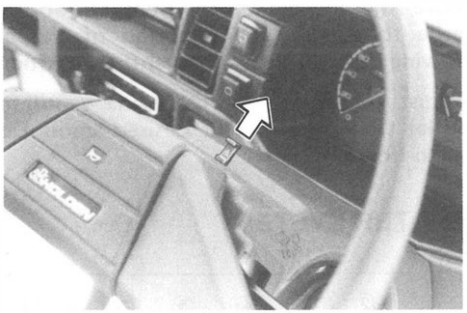


The radio is turned on by pushing the knob on the right, and volume can be controlled by turning this knob. If the selector buttons in the center are set to the stations required, these particular stations can always be obtained simply by pushing the button.

If the knob on the left is turned, stations can be selected independently of the station selector buttons.

A station selector button can be set by pulling it out about one centimeter, selecting the station with the knob on the left and then pushing the button in.

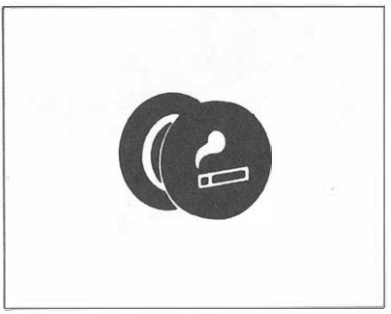
HAZARD WARNING SWITCH



Use this hazard warning switch as a warning light to the other traffic during emergency parking or when your vehicle can otherwise become a traffic hazard.

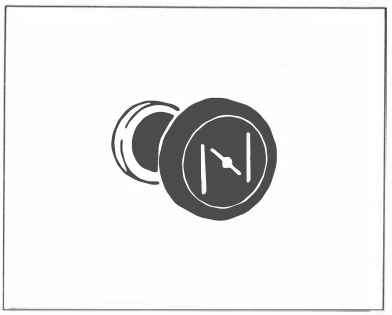
CAUTION: Do not use this switch except in an emergency.

CIGARETTE LIGHTER



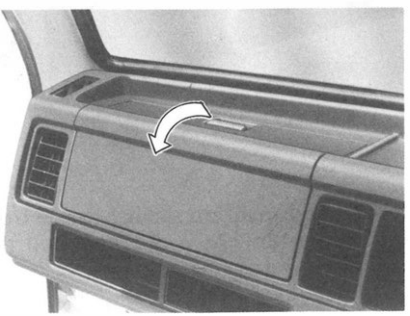
Push the cigarette lighter into the receptacle. The tip of the lighter will get red-hot after a few seconds. The lighter may be taken out and used after it has returned automatically to its original position.

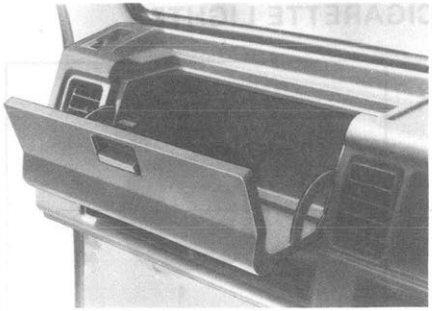
CHOKE BUTTON



This is used for starting the engine when it is cold. Please refer to Page 17 for information on how to use it.

GLOVE BOX



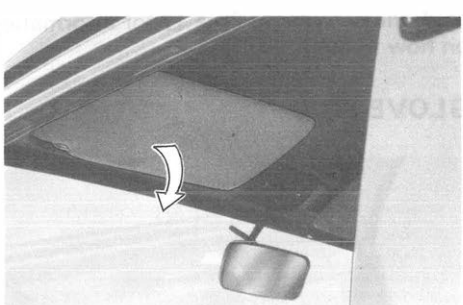


The glove box will open toward you as shown in the photo.

ASHTRAY

The ashtray can be used after pulling it out. To clean the ashtray, remove by pushing it downwards and pulling it completely out of its socket.

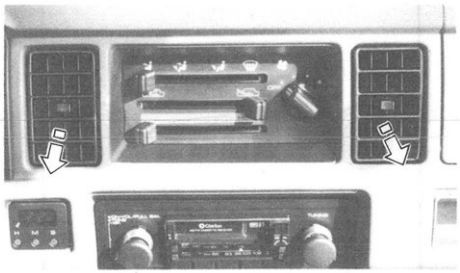
SUN VISOR



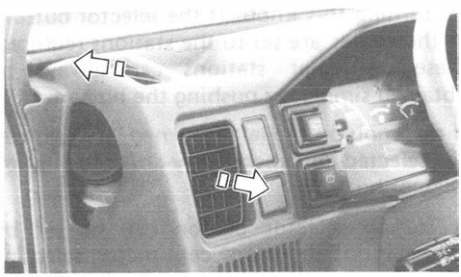
This gives protection against dazzle from the sun. If the sunlight is dazzling, pull the sun visor downwards.

VENTILATOR

Center ventilator



Side ventilator

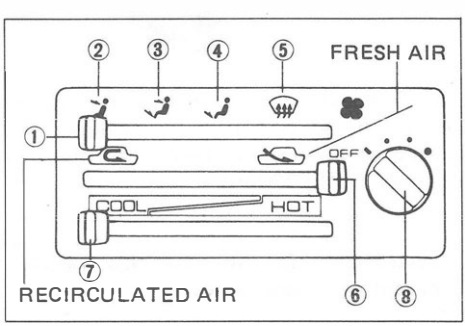


The ventilator outlets are shown in the photo.

Move the louvers of the ventilator outlet grille to control the direction of the air flowing through the center ventilator outlet.

Adjust the opening of the side ventilator outlet so as to allow the desired amount of air to flow through it.

HEATER SYSTEM



The heater system includes the forced ventilation function. Operate the system according to the following:

Air Selector Lever ① :

VENTILATION ② : Air is discharged from the center outlets of the instrument panel and the side outlets.

BI-LEVEL ③ : Air is discharged from the center outlets and heated air from the floor outlets.

HEATER ④ : Heated air is discharged from the floor outlets and a small amount of heated air from the windshield and side defrosters.

DEFROST ⑤ : Heated air is discharged from the windshield defrosters and side defrosters.

Air Intake Control Lever ⑥ :
Recirculation or outside air intake can be selected with the air intake lever.

Temperature Control Lever ⑦ :
The temperature control lever can control heater temperature.

Blower Switch ⑧ :
The blower switch controls fan speed.

SYSTEM OPERATING INSTRUCTIONS

Natural Ventilation
Move the air selector lever to the "VENTILATION" position, the air intake lever to "FRESH AIR" and the temperature control lever to "COOL". Set the blower switch to the OFF position.

With this lever setting, ram-air is obtained during driving.

Forced Ventilation
The lever setting is the same as for natural ventilation except that the blower switch is set at any position of your preference.

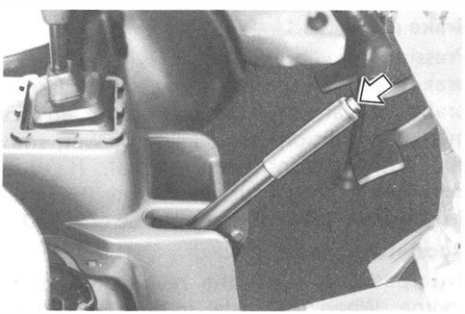
Heating By Introducing Outside Air (Regular Heating)
Move the air selector lever to "HEATER" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to regulate the temperature to your preference and set the blower switch to the desired fan speed. Setting it to a higher speed position, increases the heating efficiency.

Heating By Using Interior Air (Quick Heating)
The lever setting is the same as for "Heating By Introducing Outside Air" except that the air intake lever is set to the "RECIRCULATED AIR" position. If this heating method is used for an extended period of time, the air in the car can become contaminated and the windows can become cloudy. Therefore, use this method only for quick heating and change to the heating method by introducing outside air as soon as possible.

Head Cooled/Feet Warmed Heating
Move the air selector lever to "BI-LEVEL" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to the desired temperature and the blower switch to the desired fan speed. This lever setting allows heated air to be discharged from the floor outlets and fresh, unheated air from the center and side ventilator outlets.

Defrosting
Set the air selector lever to "DEFROST" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to desired temperature. Set the blower switch to the "HIGH" speed position first and when the windshield has become clear, move it to a lower speed position. The defrosters are at the lower end of the windshield and the side defrosters are at the both ends of the instrument panel.

PARKING BRAKE LEVER

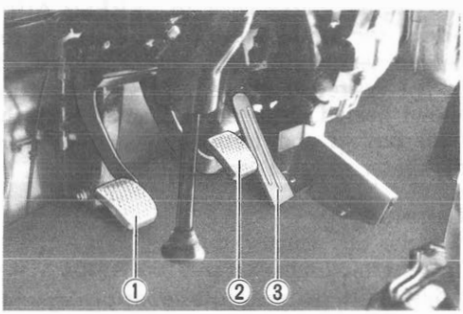


This lever must always be operated when parking. When the lever is pulled up, a parking brake is applied on the rear two wheels. To release the lever, raise it slightly, push the button at the end of the lever with the thumb and return the lever to its original position.

CAUTION:
The parking brake will not prevent the vehicle from moving unless the lever is fully and firmly pulled up.

When parking the vehicle in extremly cold weather, do not use the parking brake. Instead, shift the gear to either the Low or the Reverse position and apply chocks to the tires.

PEDALS



Clutch pedal ① :
The clutch pedal is used to disengage the drive to the wheels when starting the engine, driving off or shifting the transmission gear. Pressing the pedal disengages the clutch.

CAUTION: Do not drive with your foot resting on the clutch pedal. This may result in excessive clutch wear or damage.

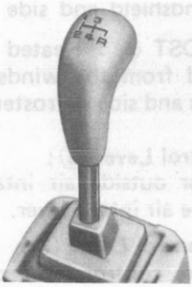
Brake pedal ② :
Pressing the brake pedal will apply the brakes on all the four wheels. Occasional brake squeal could be caused by environmental conditions such as cold, wet, snow, etc. This is considered normal. If squeal is excessive and occurs each time the brakes are applied, the brakes should be checked.

Accelerator pedal ③ :
This pedal controls the revolutions of the engine. When the pedal is pressed with the foot, the revolutions increase, and the power output and speed are raised.

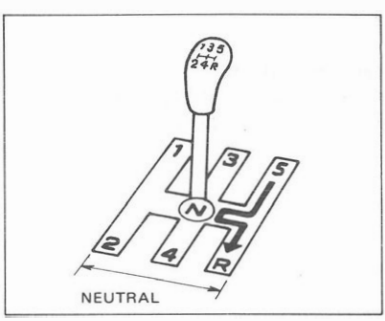
OPERATING TRANSMISSION

5-speed

4-speed



The 4 or 5-speed manual transmission is used in your vehicle and its gearshifting pattern is shown in the photo.



NOTE:
The gearshift lever will not move directly from 5th position to Reverse position. To shift from 5th position to Reverse position, first bring the gearshift lever to the intermediate position in neutral, then shift to Reverse as shown in the illustration.

DRIVING

BREAK-IN

The best possible materials are used in the manufacturing process and all machine parts are finished to high standards but it is still necessary to allow the moving parts to "BREAK-IN" before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint exercised during its early life. The general rules are as follows:

- Never exceed the following breaking-in speed limit.
- After starting, do not race the engine, but warm up gradually.

	Gear position	Initial 1 000 km (600 miles)
Maximum Recommended Speed	Low	15km/h (10mile/h)
	Second	25km/h (16mile/h)
	Third	40km/h (25mile/h)
	Fourth	70km/h (43mile/h)
	Fifth	*80km/h (50mile/h)

*5-speed

STARTING ENGINE

1. Set the parking brake firmly.
2. Shift the gearshift lever to NEUTRAL.
3. Start the engine as follows for different conditions:

Cold Engine

- If the engine is very cold, press the accelerator pedal 2-3 times. Release your foot from the pedal.
- Pull the choke knob fully.
- Press the clutch and turn the ignition switch to the START position to start the engine.
- Adjust the choke button position so that the engine runs at a moderately fast idle speed.
- Continue choke control until the engine can pick up speed smoothly with the choke knob fully returned.

CAUTION:

- **Turn off the starter immediately after the engine has started. Otherwise, starter system damage may result.**
- **Do not turn the engine for more than 5 seconds at a time. If the first try fails, wait about 10 seconds (to let the battery recoup its strength) and then try again.**
- **Do not rev up the engine excessively after starting a cold engine.**

Warm Engine

- Press the accelerator pedal slightly. (Do not pump the pedal).
- Turn the ignition switch to the START position.

STARTING OFF AND DRIVING

First, check all around (front, side and rear) to see if any other vehicles are coming. While pressing the clutch, shift the transmission into low gear. If you experience any difficulty, press the clutch again and try again. Once the transmission is in low gear, release the hand brake and press the accelerator slowly while releasing the clutch. Listening to the engine sound is helpful when using the clutch. As you gradually release the clutch there will be a change in the engine's sound. It is at this time that the accelerator is to be pressed, while you continue to ease up on the clutch gradually.

Do not use your clutch pedal as a footrest while driving. Nor should you use a half-pressed clutch to keep the car stationary on a hill. Such misuse of the clutch damages it.

While driving the car, the driver should at times observe the instruments and indicator lights. Avoiding sharp braking and fast acceleration whenever possible will increase fuel economy.

USE OF TRANSMISSION

When changing gears or starting off do not race the engine. This shortens the engine life and prevents smooth shifting. All forward speeds are synchronized, which provides for noiseless, easy gearshifting. Good gearshift control refers to keeping the engine rpm always within a certain range regardless of changes in car speed. If this is done well, fuel will be conserved and the car's lifespan will be prolonged.

BRAKING

The distance needed to bring a car to a halt increases with the speed of the car. The braking distance, for example, at 60 km/h (37 mile/h) will be 4 times greater than the braking distance at 20 km/h (13 mile/h). Start to brake the car an ample distance from the stopping point and slow the car down gradually.

If water gets into the brake drums, the brake performance may become poor and unpredictable. This may occur after driving through deep water or washing the underneath. In such cases, dry the brakes by gentle, repeated pedal action while driving at low speed.

DRIVING ON HILLS

- When climbing steep hills, the car may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the car from losing momentum.
- When driving down a hill, the engine should be used for braking by shifting to a lower gear.

WARNING:
Try not to hold the brake pedal down too long or too often while going down a steep or long grade. This could cause the brakes to get hot and not work as well. Failure to take these steps could result in loss of vehicle control.

DRIVING WITH FUEL ECONOMY

The following instructions will help you improve fuel economy.

Avoid excessive idling:
If you are to wait for more than a minute while you are not in traffic, stop the engine and start again later. When warming up a cold engine, allow the engine to idle until the temperature gauge pointer comes up to the "C" position. In this position, the engine is sufficiently warm for starting off.

Avoid "Jackrabbit" starts:
Fast starts away from lights or stop signs will consume unnecessary fuel and shorten the engine life. Start in a restrained manner.

Avoid sudden stops:
Avoid abrupt braking whenever possible. Fuel energy is wasted in braking. Acceleration to resume the driving speed also requires fuel energy.

Keep a steady cruising speed:
Keep as constant a speed as road and traffic conditions will permit.

Keep air cleaner clean:
A dirty air cleaner will cause the carburetor to supply too much fuel to the engine. The result is waste of fuel due to incomplete fuel burning.

Keep weight to the minimum:
The heavier the load, the more fuel the vehicle consumes. Take out any luggage or cargo when it is not necessary.

Keep tire pressures correct:
Underinflation can waste fuel due to increased running resistance of tires. Keep your tires inflated to the correct pressures shown on the label on the driver's side of instrument panel.

DRIVING ON ICE AND SNOW

To keep the tires from slipping or skidding when driving on ice or snow-covered roads, tire chains, snow tires or studded snow tires can be used. Keep the following suggestions in mind:

- Rather than pressing down hard on the brake pedal, the pedal should be pumped steadily and evenly to prevent the wheels locking.
- Use care when starting, speeding up or shifting into lower gear while driving. Sudden acceleration or engine braking can cause the car to slide sideways due to wheel spin or skidding.
- Avoid large, quick movements of the steering wheel. Slow down to a safe speed and steer gently when making a turn.

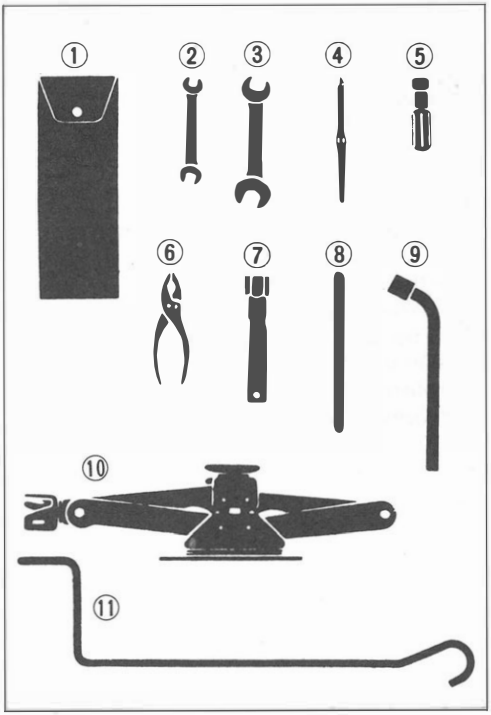
Snow chains

If you must fit snow chains or similar to increase the tire traction, observe the following:

- You are recommended to use HOLDEN genuine snow chains.
- When installing, carefully follow the manufacturer's instructions.
- When driving with chains on, limit the driving speed below 50 km/h.

DAILY INSPECTION

PORTABLE WORK TOOLS



The work tools illustrated here come with your car. These tools can be used in your checkup or for minor repairs.

① Tool case
② 8 x 10 mm open end wrench
③ 12 x 14 mm open end wrench
④ Combination screwdriver
⑤ Screwdriver handle
⑥ Pliers
⑦ Spark plug socket wrench
⑧ Socket wrench handle
⑨ Wheel wrench
⑩ Jack
⑪ Jack handle

The condition of the vehicle could change daily. Before driving every day, inspect the following items on your vehicle.

(1) Fan belt
(2) Engine oil
(3) Windshield washer fluid
(4) Battery solution level
(5) Engine coolant
(6) Brake pedal stroke
(7) Tires
(8) Clutch pedal play
(9) Steering operation
(10) Indicator lights, gauges and meter
(11) Lighting system
(12) Horn and turn signal
(13) Exhaust gas
(14) Fuel level
(15) Door lock
(16) Mirrors
(17) Number plate

PERIODIC MAINTENANCE

The following table indicates the times at which regular inspections are to be carried out, in km (miles) and months. Inspections, adjustments, lubrication and other servicing must be carried out at the various intervals as indicated. These intervals must be shortened if driving is usually done under severe conditions, for example at full throttle.

Please consult your HOLDEN dealer with regard to such intervals.

CAUTION: Periodic inspection will reveal the need for replacement of one or more parts after prolonged service of your vehicle. Whenever such a need arises, it is recommended that you use HOLDEN genuine replacement parts: Avoid taking chances. Do not use imitation parts.

PERIODIC MAINTENANCE SCHEDULE

Interval: This interval should be judged by odometer reading or months, whichever comes first.										
	km (x 1 000)	1	10	20	30	40	50	60	70	80
	miles (x 1 000)	1	6	12	18	24	30	36	42	48
	months	1	6	12	18	24	30	36	42	48
EINGINE										
* 1. Water pump (fan) drive belt		I	–	I	–	R	–	I	–	R
* 2. Valve lash (clearance)		I	–	I	–	I	–	I	–	I
* 3. Engine bolts (all cylinder head and manifold fixings)		–	–	–	–	T	–	–	–	T
* 4. Engine oil filter		R	R	R	R	R	R	R	R	R
5. Engine oil	API Grade SD, SE or SF	R	Replace every 10 000 km (6 000 miles)							
6. Engine coolant		–	–	–	–	R	–	–	–	R
* 7. Cooling system hoses and connections		–	–	I	–	I	–	I	–	I
* 8. Exhaust pipes and mountings		–	–	I	–	I	–	I	–	I
IGNITION										
* 9. Ignition wiring		–	–	I	–	I	–	I	–	I
*10. Distributor cap and rotor		–	–	I	–	I	–	I	–	I
*11. Spark plugs and distributor breaker point		–	R	R	R	R	R	R	R	R
*12. Ignition timing		I	I	I	I	I	I	I	I	I
*13. Distributor advance		–	–	I	–	I	–	I	–	I
FUEL										
14. Air cleaner filter element	Paved road	Clean every 10 000 km (6 000 miles)								
	Dusty condition	Clean every 2 500 km (1 500 miles) or as required Replace every 40 000 km (24 000 miles) More frequent replacement if under dusty driving condition								
	Cyclone	Clean every month								
*15. Accelerator cable & Carburetor shafts		–	I&L	I&L	I&L	I&L	I&L	I&L	I&L	I&L
*16. Fuel tank cap, gas lines and connections		I	–	–	–	I	–	–	–	I
*17. Fuel filter		–	–	–	–	R	–	–	–	R
*18. Idle speed and idle mixture		I	–	I	–	I	–	I	–	I
EMISSION CONTROL SYSTEM										
*19. Crankcase ventilation hoses and connections		–	–	I	–	I	–	I	–	I
*20. P.C.V. valve		–	–	–	–	I	–	–	–	I
*21. Fuel vapor storage system, hoses and connections		–	–	I	–	I	–	I	–	I
ELECTRICAL										
*22. Wiring harness, connections and headlights		–	–	I	–	I	–	I	–	I

Item *20 is applicable to the vehicle equipped with a P.C.V. valve on the intake manifold.

Interval: This interval should be judged by odometer reading or months, whichever comes first.	km (x 1 000)	1	10	20	30	40	50	60	70	80
	miles (x 1 000)	1	6	12	18	24	30	36	42	48
	months	1	6	12	18	24	30	36	42	48
CHASSIS AND BODY										
*23. Clutch pedal play		I	I	I	I	I	I	I	I	I
*24. Brake fluid (level, leakage)		I	I	I	I	R	I	I	I	R
*25. Brake pedal (travel)		I	I	I	I	I	I	I	I	I
*26. Brake lever and cable (play, damage)		I	I	I	I	I	I	I	I	I
*27. Brake discs and pads, Brake drums and shoes (wear)		—	I	I	I	I	I	I	I	I
*28. Brake hoses and pipes (leakage, damage)		—	I	I	I	I	I	I	I	I
29. Tires (abnormal wear and pressure)		—	I	I	I	I	I	I	I	I
*30. Wheels and hub nuts (damage, tightness)		I	I	I	I	I	I	I	I	I
*31. Shock absorbers (oil leakage, damage)		I	I	I	I	I	I	I	I	I
*32. Propeller shaft (tightness, damage)		—	—	I	—	I	—	I	—	I
*33. Transmission and differential oil (level, leakage)		R	I	I	I	R	I	I	I	R
*34. Suspension (Tightness, damage & rattle)		I	I	I	I	I	I	I	I	I
*35. Steering conditions (tightness, play, damage, breakage & rattle)		I	I	I	I	I	I	I	I	I
36. Door hinges		—	L	L	L	L	L	L	L	L
*37. Test drive		Test drive on completion of each service								

"R" : Replace or Change
"I" : Inspect and correct or replace if necessary
"L" : Lubricate
"T" : Tighten

CAUTION: Whether you're an expert or do-it-yourself mechanic, HOLDEN recommends that inspection of those items marked with an asterisk (*) be performed by your authorized HOLDEN dealer. Other items are relatively easy to handle and you can accomplish work by referring to the instructions set forth in this manual.

INSPECTION AND MAINTENANCE

PRECAUTIONS AGAINST ACCIDENTS

As with any machinery, extreme care should be taken when working on your vehicle to prevent accidental injury. Here are a few precautions that you should be especially careful to observe:

* When the engine is running, keep hands, clothing, tools, and others away from the moving fan and fan belt.
* Be careful not to touch hot exhaust components (manifold, pipes, mufflers).
* Do not allow smoking, sparks, or flames around gasoline or the battery, as the fumes are inflammable.
* Do not get under your vehicle if it is supported only with the portable jack provided in your vehicle.
* Be careful not to cause accidental short circuits between battery terminals (positive and negative)

CHECKING INSTRUMENTS

Turn the ignition switch to the "ON" position. Check that the pilot lights come on and that the fuel meter is working properly. After starting the engine, check the charge light and the water temperature gauge. When driving off, check that the speedometer is working properly.

CHECKING LIGHTS

Turn on the switches and check that the headlights, parking lights and other lights come on. Press the brake pedal and ensure that the stop lights light up. Put the shift lever into the R (reverse) position and check that the back lights come on. Finally, do not forget to check that the light lenses are not dirty or damaged.

HORN, TURN SIGNALS, WIPERS, WINDSHIELD WASHER & DEFROSTER

Check that the horn, turn signals, wipers, windshield washer and defroster are in proper working order.

CHECKING FUEL

Make sure that there is enough gasoline for the planned driving distance.

CHECKING DOOR LOCK

Make sure that the doors lock properly.

CHECKING REAR VIEW MIRROR

Check that rear vision is clear from the driving position.

CHECKING REFLECTORS AND NUMBER PLATE

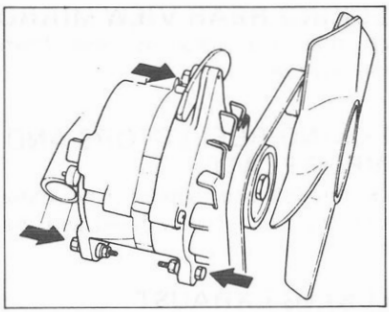
Check for dirt and damage. Check that the number plate is securely fixed and that the figures on it are clear.

CHECKING EXHAUST

Something is wrong if the exhaust is either excessively white or black. If this is the case, an inspection must be performed by your HOLDEN dealer. However, the exhaust gas may be found to be white on a cold day. This is quite normal as the exhaust gas contains water vapor that turns into mist with the exhaust system cold.

CAUTION: If you feel that there may be something wrong with any of the above inspection items, or if there is something wrong which you are unable to repair yourself, do not leave the car as it is but trust the repair works to your HOLDEN dealer.

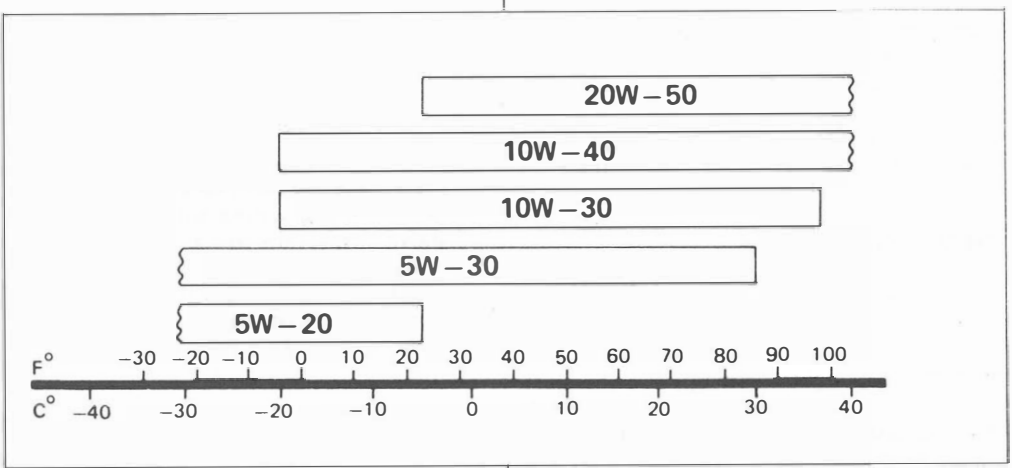
FAN BELT



If the belt is too loose, insufficient battery charging, overheating or excessive belt wear will result. The tension of the belt should be such that there is a deflection of 6 – 9 mm when midway between the pulleys is pressed by your thumb. The belt should also be examined to ensure that it is not damaged. The belt should be adjusted or replaced in the following way:

1. Loosen the three bolts securing the alternator.
2. When stretching the belt, push the alternator outwards with the bolts loosened, tighten the bolts at the position in which the tension of the belt is within the limits specified above, and fix the alternator securely.
3. To replace the belt, slide the alternator inwards with the bolts loosened and replace the belt. Having replaced it, stretch the belt as specified in "2" above.

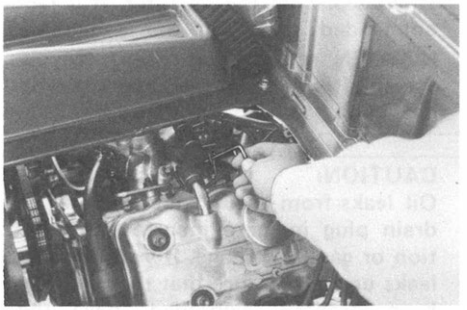
ENGINE OIL

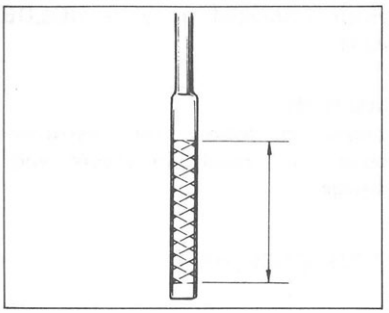


Specified oil

Be sure that the engine oil you use comes under the API classification of SE, SD or SF. Select the oil viscosity according to this chart:

Inspection

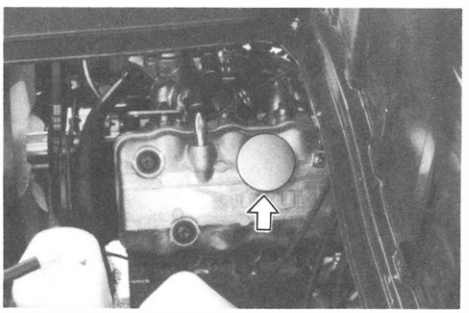




The oil level should be inspected with the car placed on a level surface. Incorrect level may be shown if the car is on a slope. The oil level should be checked either before starting the engine or at least two or three minutes after stopping the engine.

Pull out the oil dipstick, wipe oil off with a clean cloth, insert the dipstick all the way into the engine, then remove it again. The oil on the stick should be between the upper and lower limits. If it is near the lower limit, add oil to raise the level to the upper limit.

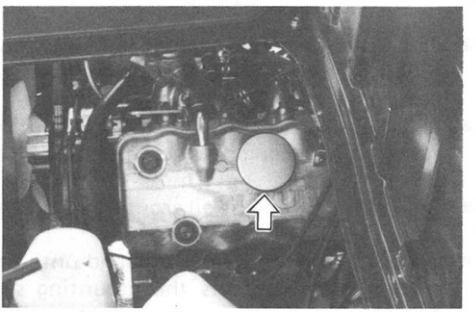
Refilling

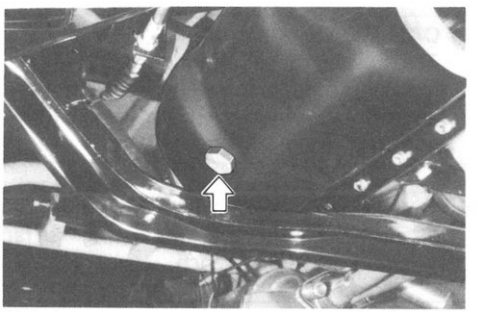


Remove the filler cap and pour oil slowly through the filler hole to bring up the oil level on the dipstick to the upper limit. Be careful not to overfill. Too much oil is almost as bad as too little oil. After refilling, start and allow the engine to idle for about a minute. Stop the engine, wait for two or three minutes and check the oil level with the dipstick.

CHANGING ENGINE OIL AND FILTER

Drain the oil and reinstall the drain plug.



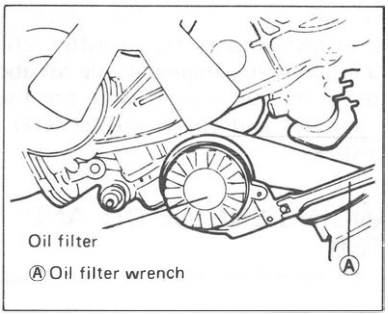


- Remove the oil filler cap.
- Place a drain pan under the drain plug.
- Using a wrench, remove the drain plug and drain out the engine oil while the engine is still warm.

WARNING: The engine oil temperature may be high enough to burn your fingers when the drain plug is loosened. Wait until the drain plug is cool enough to touch with bare hands.

- Reinstall the drain plug and gasket. Tighten the plug with a wrench.

Remove the old oil filter and install a new one.



- Using an oil filter wrench, unscrew the oil filter and remove it. It turns counterclockwise.
- Using a clean rag, wipe off the mounting surface on the engine where the new filter will be seated.
- Smear a little engine oil around the rubber gasket of the new oil filter.
- Screw on the new filter by hand until the filter gasket contacts the mounting surface.

CAUTION:
To tighten the oil filter properly, it is important to accurately identify the position at which the filter gasket first contacts the mounting surface.

- Tighten the filter 2/3 turn from the point of contact with the mounting surface using an oil filter wrench.

CAUTION:
To prevent oil leakage, make sure that the oil filter is tight, but do not overtighten it.

- Pour oil through the filler hole and install the filler cap.
- With the engine running, look carefully, for leaks at the oil filter and drain plug. Run the engine at various speeds for at least 5 minutes.
- Stop the engine and wait a few minutes. Check the oil level again and add oil if necessary. Check for leaks again.

CAUTION:
When replacing the oil filter, it is recommended that you use a genuine HOLDEN replacement filter. If you use an aftermarket filter, make sure it is of good quality.

CAUTION:
Oil leaks from around the oil filter or drain plug indicate incorrect installation or gasket damage. If you find any leaks or are not sure that the filter has been properly tightened, have the vehicle inspected by your HOLDEN dealer.

CAUTION:
Failure to follow the instructions above may result in severe engine damage.

ENGINE COOLANT

Recommended coolant

Use GOLDEN CRUISER 1200 properly mixed with water all year round. Change the coolant once every two years. Cooling water must be soft water – such as drinking water. Hard water (which includes well water and river water) contains many impurities (iron and the like) which may cause rust or foul inside the radiator leading to engine trouble.

GOLDEN CRUISER 1200 serves not only as an anti-freeze element, but also anti-foam, anti-rust and anti-corrosion besides being a lubricant for the water pump. To obtain these performances, it is necessary that the solution not be diluted to more than 30%.

Lowest temperature	Concentration	Coolant	Water
−15°C (5°F) or above	30%	1.2 L (2.5/2.1 US/Imp pt)	2.8 L (5.9/4.9 US/Imp pt)
−16°C (3°F) or below	50%	2.0 L (4.2/3.5 US/Imp pt)	2.0 L (4.2/3.5 US/Imp pt)

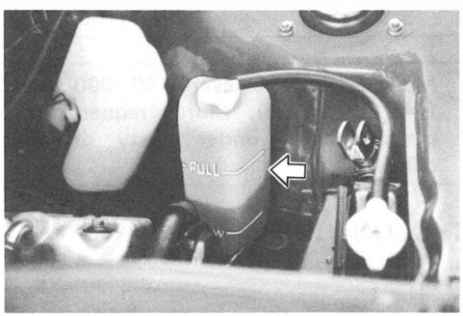
Coolant mixture ratio

Prepare the cooling solution according to the lowest ambient temperature expected in your area.

CAUTION: If you use anti-freeze and summer coolant other than GOLDEN CRUISER 1200, observe the instructions given by each manufacturer.

When you replace the coolant, follow the instructions below.

Inspection

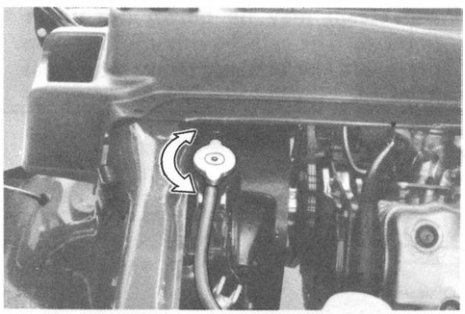


With the engine cool, check the coolant level in the reservoir tank. The level should be between the "FULL" and "LOW" marks. If the level is below the "LOW" mark, replenish the coolant following the procedure below.

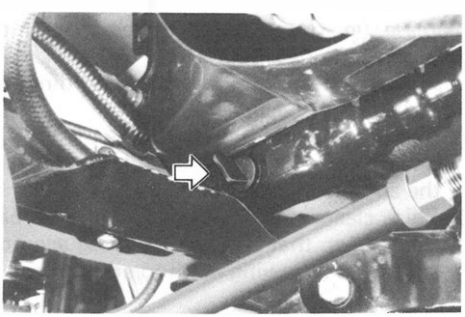
(1) Remove the reservoir cap.
(2) Pour coolant into the reservoir tank until it reaches the "FULL" mark. The level must not exceed the "FULL" mark.
(3) After the coolant has reached the "FULL" mark, refit the cap securely.

When there has been a large decrease in quantity of coolant, or when refilling has to be done frequenty, it is possible that a leak may have occured in the cooling system, and therefore an inspection should be carried out by your HOLDEN dealer.

Coolant replacement



1. When the engine is cool, remove the radiator cap by turning it slowly to the left until a "stop" is felt. Do not press down while turning the cap. Wait until the remaining pressure is released, then press down on the cap and continue turning it to the left.
2. Remove the reservoir by lifting it up and drain completely.



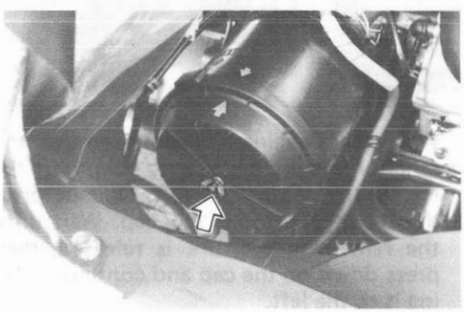
3. Loosen the drain plug attached to the lower part of the radiator and drain off the coolant.
4. Fill the reservoir with coolant to the "FULL" line.

5. Tighten the drain plug, fill the radiator with coolant and attach the radiator cap.
6. After filling, let the engine idle for about 2 ~ 3 minutes to get rid of air within the cooling system.
7. Since the coolant level may have gone down, check and refill the radiator to the filler inlet.

CAUTION: The coolant must be replaced with the car on level ground.

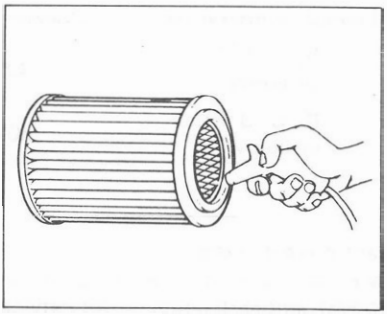
WARNING: It is dangerous to remove the radiator cap when the water temperature is high, because scalding fluid and steam may be blown out under pressure. The cap should only be taken off when the coolant temperature has lowered.

AIR CLEANER



If the air cleaner is clogged with dust, intake resistance will be increased with a resultant decrease in output and increase in fuel consumption.
Check and clean periodically according to the following procedure:

1. Remove the wing nut and take off the air cleaner cap. Remove the element from the air cleaner case.
2. This cleaner element is of dry type. Remember that it needs cleaning according to the following method and interval.

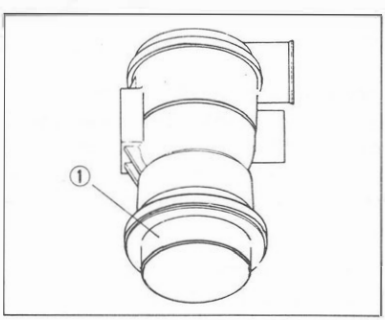


3. Blow off dust on cleaner element by compressed air from inside element.

Element cleaning interval	
Paved road	Clean every 10 000 km (6 000 miles)
Dusty condition	Clean every 2 500 km (1 500 miles) or as required

NOTE: Replace every 40 000 km (24 000 miles). More frequent replacement if under dusty driving condition.

CYCLONE (where fitted)



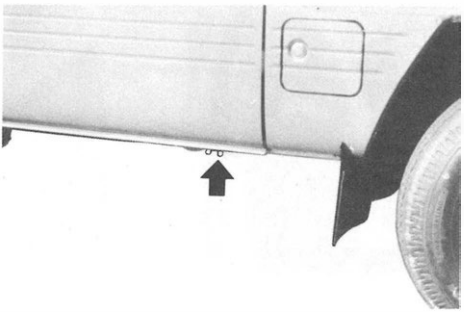
This device is installed to the vehicles used in certain dusty areas.

If the cyclone is equipped on your vehicle, it is installed upstream the air cleaner inlet hose. Its purpose is to previously clean the air to be drawn into the air cleaner and then into the carburetor. It rotates the incoming

air, and separates dust therefrom with an effect of the centrifugal force produced therein.

Check the cup ① for inner dust every month. If the cup collects dust up to its middle level, remove it from the main body of the cyclone and clean its interior.

AIR INTAKE CONTROL LEVER



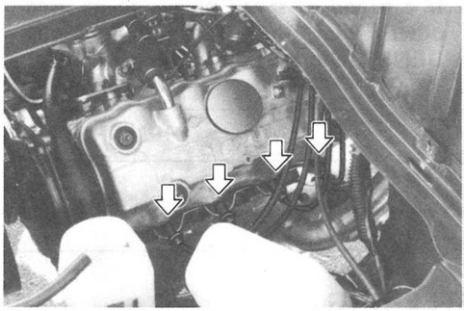
Based on the atmospheric temperature as listed below, the air intake control lever should be turned to position "SUMMER" or "WINTER".

Atmospheric temperature	Position of lever
15°C (59°F) above	SUMMER
15°C (59°F) below	WINTER

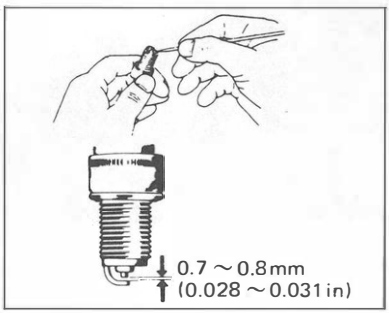
With the lever turned to position "WINTER", air heated by the exhaust manifold is fed to the carburetor passing through the air cleaner. This assures the best engine efficiency even under cold weather.

CAUTION: As engine over-heating may result, do not turn the lever to position "WINTER" when the air temperature exceeds 15°C (59°F).

SPARK PLUGS



The standard spark plug is either NGK BP5ES or NIPPON DENSO W16EX-U.



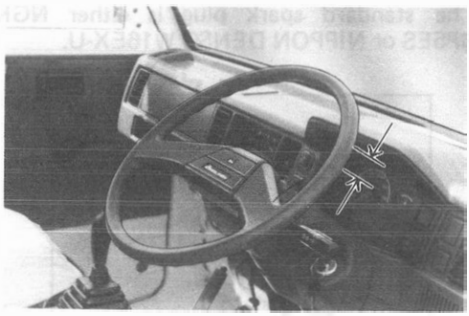
When carbon accumulates on the spark plug, a hot, strong spark may not be produced. Remove carbon deposits with a wire or pin and adjust the spark plug gap to 0.7 – 0.8 mm (0.028 – 0.031 in.).

CAUTION:
- **When installing the spark plug, screw it in with your fingers, to avoid stripping the threads, then tighten with a torque wrench to 25.0 – 30.0 N.m (2.5 – 3.0 kg-m, 18.0 – 22.0 ft-lb).**
- **Do not use a spark plug with the wrong thread size. If the spark plug threads are either protruded or receded inside the cylinder head, carbon can accumulate on the exposed thread portion and this may cause damage to the threads when removing the plug or replacing with correct plug.**

CAUTION:
If a brand of spark plug is to be used other than the NGK or NIPPON DENSO, consult your HOLDEN dealer.

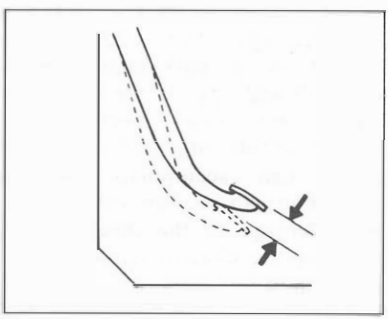
	REMARKS
NGK BP5ES or NIPPON DENSO W16EX-U	Standard

STEERING



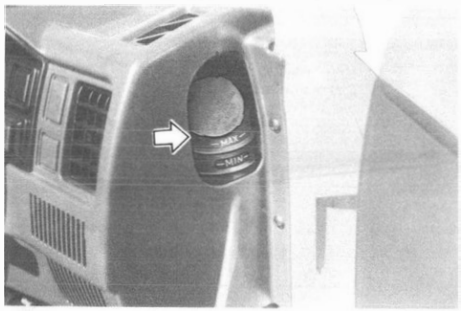
Check the play of the steering wheel by gently turning it from left to right. The play of the wheel should be 0 — 30 mm around the circumference. When driving very slowly in an open area, turn the steering all the way to the right and to the left to check that the steering wheel turns lightly and smoothly without rattle. If anything is found to be wrong, an inspection must be performed by your HOLDEN dealer.

CLUTCH PEDAL



The play of the clutch pedal must be within 20—30 mm (0.8—1.2 in). If the play is more or less than the above, or clutch dragging is felt with the pedal pressed, contact a HOLDEN dealer, where it will be inspected and repaired.

BRAKES



Brake fluid

The brake fluid reservoir tank is located at the left end of the instrument panel in the case of the L/H Drive vehicle or at the right end therefore in the case of the R/H Drive vehicle.

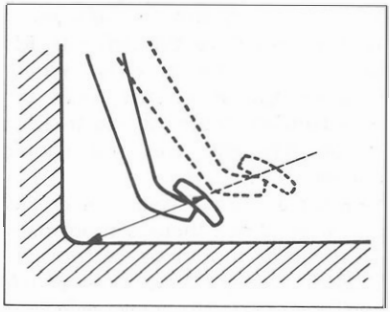
Check the brake fluid. If the fluid level is lower than the "MIN" level of the reservoir, fill the reservoir with the brake fluid listed below:

	Specifications
Brake fluid	SAE J1703 or DOT 3

CAUTION:
(1) Since the brake system of your vehicle is factory-filled with a glycol-based brake fluid, do not use or mix it with a different type of fluid when refilling the system, otherwise serious damage will be caused. Do not use a brake fluid taken from old or used or unsealed containers.
(2) The brake fluid should be replaced once every two years.
(3) Take every caution when filling the reservoir because brake fluid can harm your eyes and damage painted surfaces.

WARNING:
As the brake fluid level in the reservoir goes down, the brake warning light on the instrument panel comes on while the engine is running. Should the light come on, inspect the reservoir for the brake fluid level. If the fluid is found to be below the "MIN" level, immediately ask your HOLDEN dealer to inspect the brake system.

Brake pedal



Check the brake pedal for the distance between the pedal and wall when the pedal is pressed with approximately 30kg (66 lbs) of force. The minimum distance required is 95 mm (3.74 in).

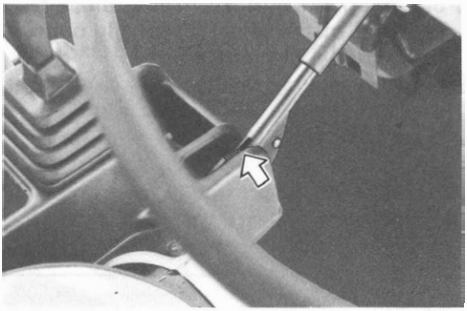
NOTE:
Measure pedal-to-metal wall distance in the pedal stroke direction. Be sure not to include the mat or rubber on the wall.

For disc brake:
As this brake system has a self-adjusting feature, there is no need of pedal adjustment. If, however, the pedal distance should be found abnormal, take your vehicle to your HOLDEN dealer.

If the following troubles are found in your brake system, an inspection and repairs must be immediately performed by your HOLDEN dealer:

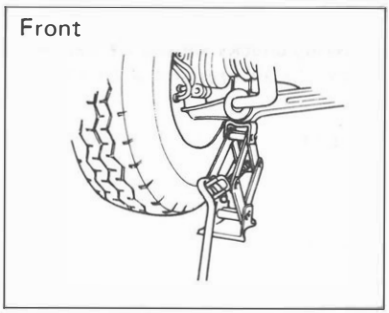
1. Poor braking performace
2. Uneven braking (Brakes not working uniformly on all wheels.)

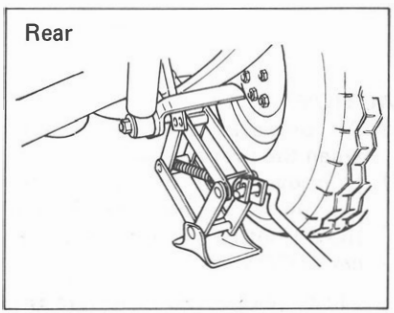
Parking brake



Set the parking brake lever by pulling it all the way up and check that the rear wheels are properly locked and that the parking brake lever stops at its 3rd ~ 8th ratchet tooth when the parking lever grip is held at its mid-position and pulled up with approximately 20 kg (44 lbs) force. Also check that the brakes are not dragging when the brake lever is fully returned. If any of the above is found to be wrong, take your vehicle to HOLDEN dealer.

JACKING INSTRUCTIONS



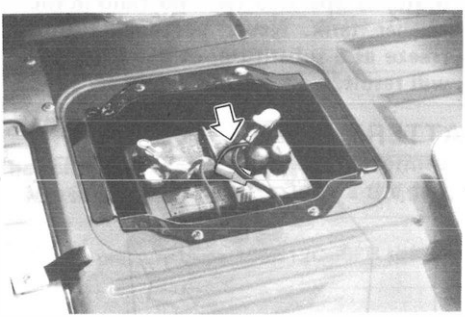


WARNING:
Since inflammable hydrogen gas is produced by the battery, keep away from fire or sparks whenever handling it. Otherwise, an explosion can occur. It is dangerous if battery fluid gets into the eyes or on the skin. In this respect care should be taken. If by any chance it should get on the skin, the part affected must be washed immediately with plenty of water for at least five minutes, and a medical specialist should be consulted.

FUSES

There are two basic types of fuse. One is the main fuse (fusible link), which takes the current directly from the battery. The other is the fuse present in each electrical circuit.

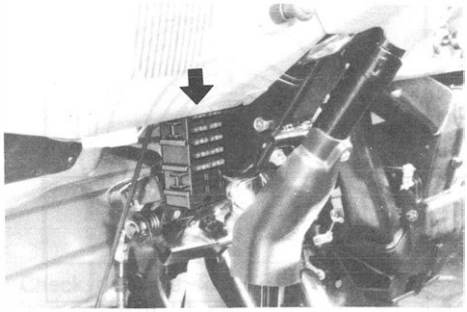
Main fuse (fusible link)



As mentioned above, the fusible link takes current directly from the battery. When this link has blown, no electrical component will function. If this happens, check the fusible link located at the battery positive terminal. When replacing the fusible link, use a HOLDEN genuine replacement.

CAUTION: If the fusible link blows, be sure to have an inspection carried out by a HOLDEN dealer. Always use a genuine HOLDEN fusible link for replacement. Never use a subsitute such as wire even for a temporary fix. It can cause extensive electrical damage, possibly a fire.

Fuse box



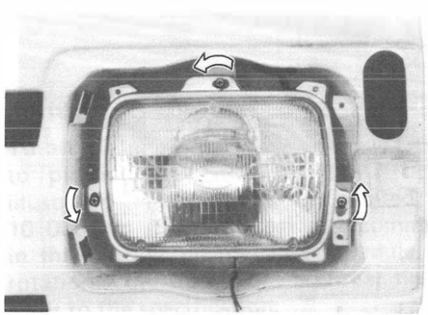
The fuse box is located under the driver's side of the dashboard. To remove the fuse, simply pull out after removing the fuse box cover. To identify the amperage and location, refer to the fuse list shown on the fuse box cover.

CAUTION: Always be sure to replace a blown fuse with a fuse of the correct amperage. Never use a substitute, for example aluminum foil or wire, to replace a blown fuse. If the spare fuse installed blows in a short period of time it means that you could have a major electrical problem. You should consult your HOLDEN dealer immediateiy.

NOTE:
Make sure to replace the spare fuses if they are used so that the fuse box cover always carries three spare fuses, 10A and 15A.

BULB REPLACEMENT

Headlights



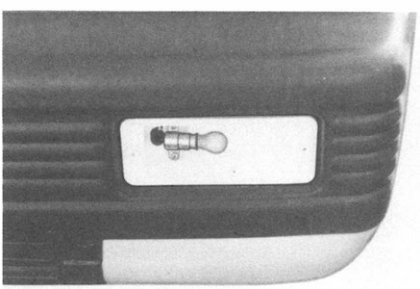
Take out the screws securing the front grille and remove it. The headlights will come off if they are turned to the left while pushing in the headlight unit. Remove the coupler on the back side of the headlight unit and the unit may be taken out. Do not loosen the three screws securing the headlight unit. Attach a new headlight unit in the reverse order.

> CAUTION: Adjustment of the headlight beam is necessary after replacing the headlight unit. If you have performed the replacement work yourself, make sure you take the vehicle to your authorized HOLDEN dealer for proper adjustment.

Turn signal lights, combination light, back-up light and licence plate lights

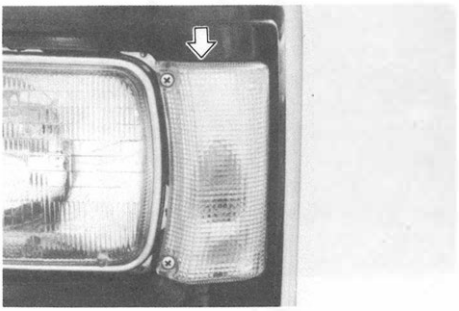
Undo the two screws holding in the lens and remove it. The bulb can be removed by pushing it in and turning it counterclockwise. A new bulb is installed by performing the same actions in reverse order.

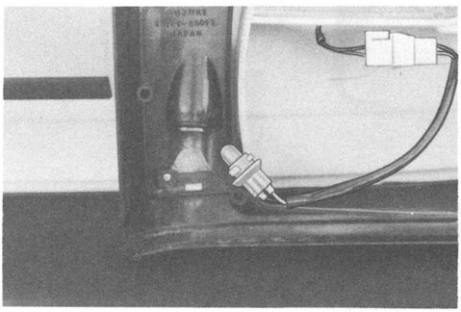
Front turn signal light



Clearance light

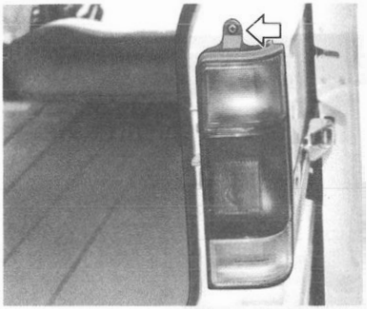
Type 1

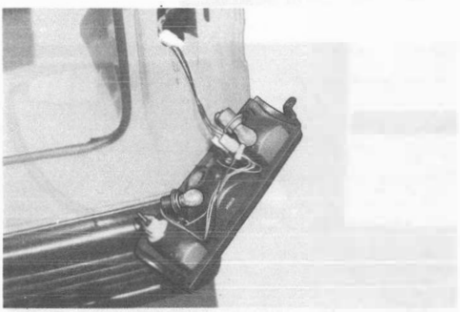




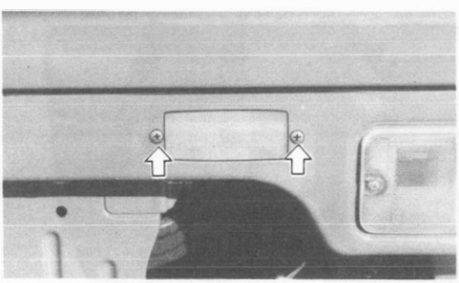
Type 2

Rear combination light

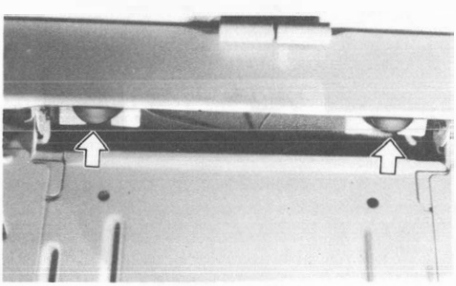




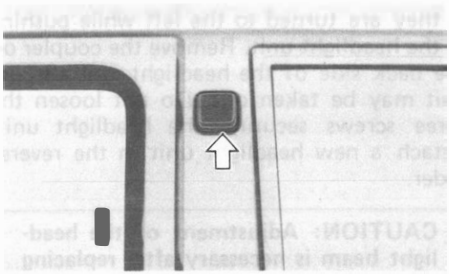
Back-up light



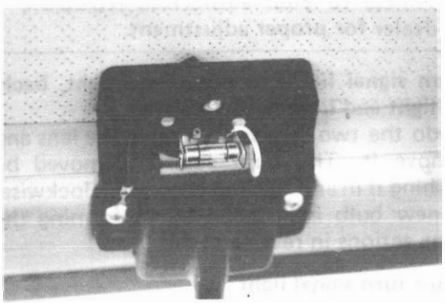
License plate lights



Side turn signal light



Interior light



Pull down on the rear part of lens to remove it. The bulb can be removed by simply pulling it down. When replacing the bulb, make sure that the contact springs are holding the bulb securely.

APPEARANCE CARE

CAUTION:
When cleaning the interior or exterior of the vehicle, NEVER USE volatile solvents such as lacquer thinners, gasoline, benzene or such cleaning materials as bleaches, strong household detergents. Some of the above materials may be poisonous or flammable and their improper use may cause personal injury or damage to the vehicle.

CLEANING INTERIOR

Vinyl Upholstery
Prepare a solution of soap or neutral detergent mixed with warm water. Apply solution to the vinyl with a sponge or soft cloth and let it soak for a few minutes to loosen dirt. Rub the surface with a clean, damp cloth to remove dirt and soap solution. If some dirt still remains on the surface, repeat the procedure.

Fabric Upholstery
Remove loose dirt by vacuum cleaner. Rub the stained area with a clean cloth made damp with soap solution and then wipe by rubbing with another cloth slightly wet with water to absorb and remove soap. Repeat this until the stain is cleaned. You may use commercially available fabric cleaner. In this case, carefully follow the manufacturer's instructions and precautions.

Seat Belts
Clean seat belts with mild soap and water. Do not use a bleach or dye on the belts—it may weaken them.

Vinyl Floor Mats
Ordinary dirt can be removed from vinyl with water and mild soap. Use a brush to help loosen dirt. After dirt is loosened, rinse the mat thoroughly with water and dry it in the shade.

Carpets
Remove dirt and soil as much as possible by vacuum cleaner. Rub the stained area with clean cloth made damp with soap solution and then wipe by rubbing with another cloth slightly wet with water to absorb and remove soap. Repeat this until the stain is cleaned. You may use commercially available carpet cleaners. In this case, carefully follow the manufacturer's instructions and precautions.

CLEANING EXTERIOR

Dirt or any other foreign material on the painted surfaces can cause such problems as the following, as time goes on:

1. Faded paint.
2. Body rust due to deteriorated paint film.
3. Body rust due to scratches possibly caused by dirt or foreign material.
4. Body rust due to contact with damp dirt trapped in the body.

Therefore, it is important that your HOLDEN vehicle should always be kept clean and free from dirt in order to maintain the paint in a good condition and to protect the entire body against corrosion.

Washing
When washing the vehicle, follow the instructions below.

1. Flush the underside of body and wheel housings with pressurized water to remove mud and debris. Use plenty of water to loosen and thoroughly remove dirt.
2. Remove dirt and mud from the body exterior with running water. You may use a soft sponge, brush or the like with water. Do not use hard materials which can scratch the paint.
3. Wash the entire exterior with neutral detergent or car-wash soap lightly rubbing with sponge or soft cloth. The sponge or cloth should be frequently soaked in the solution.

CAUTION:
When using commercial car-wash products, observe the precautions as specified by the manufacturers. Never use strong household detergents or soaps.

4. Once the dirt has been completely removed, wash off the detergent with the running hose water.

5. After rinsing, wipe off the body lightly with a wet chamois or cloth and allow the body to dry in the shade.
6. Check carefully for damage to the painted surfaces. If any is found, "touch-up" the damage following the procedure below.
   (1) Clean all damaged spots and allow them to dry.
   (2) Stir the paint and "touch-up" the damaged spots lightly with a small brush.
   (3) After painting, allow them to properly dry.

WARNING:
After washing, check the brakes are dry. If the brakes are not dry, dry them by gently and repeatedly applying brakes while driving at low speed.

Waxing

After washing the vehicle, waxing and polishing are recommended to futher protect and beautify the paint.

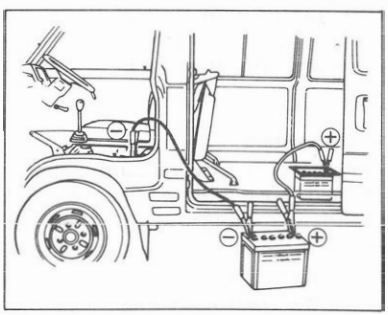
* Only use waxes and polishes of good quality.
* When using waxes and polishes, observe the precautions specified by the manufacturers.
* Chrome parts should also be waxed.

BREAKDOWNS AND EMERGENCY REMEDIES

When starter does not operate:

1. Try turning the ignition switch to the "START" position with the headlights turned on to determine the battery condition. If the headlights go dim excessively or go off, it usually means that either the battery has run down or battery terminal contact is poor. Recharge the battery or correct the contact when the cause is determined.
2. If the headlights remain bright, check the fuses. If the trouble persists, take your vehicle to your authorized HOLDEN dealer as there may be a major electrical problem.

Jump starting instructions:



If the engine will not start due to a discharged battery, a well charged, separate battery or one in another vehicle may be connected to the system to help supply enough electric energy.

WARNING:
Batteries produce explosive gasses, contain corrosive acid and supply levels of electrical current high enough to cause burns. To lessen the chance of personal injury when working near a battery, follow the instructions below.
- **Always shield your eyes and avoid leaning over the battery.**
- **Do not expose the battery to open flames or sparks.**
- **Do not allow battery acid to contact eyes or skin. If any part of your skin does come into contact with battery acid, wash the affected area with water immediately and thor-**

oughly, and get medical help.

When connecting a battery for jump starting, follow the instructions below.

1. Place a good 12V battery close to the vehicle so that the jumper cables will reach the vehicle's battery. When using a battery installed on another vehicle, bring both the vehicles close to each other but do not let the vehicles touch.
2. Clamp one end of the first jumper cable to the positive (+) terminal on one battery and the other end to the positive (+) terminal on the other battery.
3. Clamp one end of the second jumper cable to the negative (−) terminal of the good battery and the final connection to an unpainted, heavy metal part of the engine that has the discharged battery. Make sure that the cables are not on or near pulleys, belt or fans.
4. Start the engine of the vehicle with the good battery. Then, start the engine that has the discharged battery.
5. Remove the jumper cables by reversing the above installation sequence.

When engine is flooded:
If the engine is flooded with gasoline, the engine may be hard to start. In that case, press the accelerator pedal all the way down and hold, but do not pump. Turn the engine until it fires, clears the excess gasoline and runs smoothly. (But, do not operate the starter motor for more than 10 seconds).

When engine overheats:
The engine could overheat temporarily during severe driving conditions. If the engine coolant temperature gauge indicates overheating during driving:

- Turn off airconditioner, if equipped;
- Take the vehicle to a safe place and park; and
- Let the engine run at normal idle speed for a few minutes until the gauge temperature goes down to the safe zone.

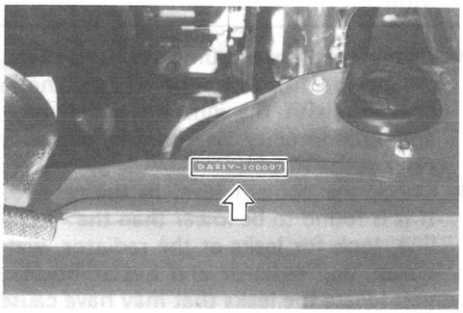
If the temperature does not go down, check the following:

WARNING:
If you see or hear escaping steam, stop the vehicle and turn off the engine immediately to let it cool. When no steam can be seen or heard, open the hood and check if the coolant is still boiling. If such is the case, wait until it stops.

- **Check that water pump belt and pulleys are not damaged or slipping, and the fan operates with the ignition switch on. If any abnormality is found, adjust or correct the trouble.**
- **Check the coolant level in the reservoir. If it is found to be lower than the "LOW" line, look for leaks at the radiator, water pump, and radiator and heater hoses. If you locate the leaks that may have caused the overheating, do not run the engine until these problems have been corrected.**
- **If you do not find a leak, carefully add coolant to the reservoir and then radiator, if necessary. (See "ENGINE COOLANT"** in "INSPECTION AND MAINTENANCE" section for proper antifreeze and mixture.)

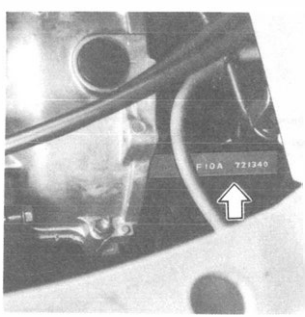
VEHICLE IDENTIFICATION

CHASSIS SERIAL NUMBER



The chassis serial number is stamped on the body as shown in the photo, which is located under the seat. The chassis and/or engine serial numbers are used to register the vehicle. They are also used to assist your dealer when ordering or referring to special service information. Whenever you have occasion to consult your HOLDEN dealer, remember to identify your vehicle with this number. Should you find the number difficult to read, you will also find it on the identification plate.

ENGINE SERIAL NUMBER



The engine serial number is stamped on the cylinder block.

SPECIFICATIONS

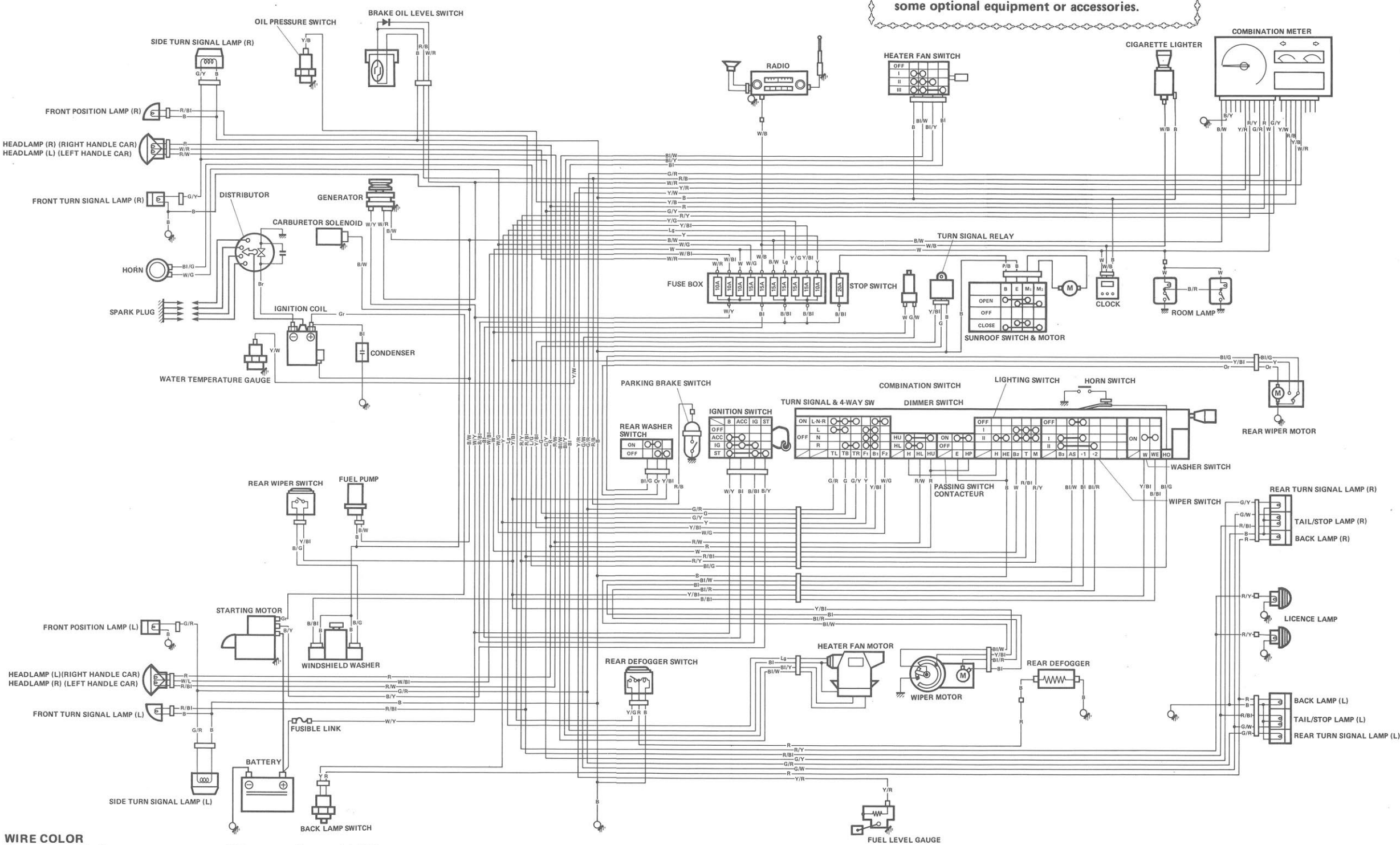
NOTE:
Specifications are subject to change without notice.

ITEM	8NS05/8NT05/8NT 75
DIMENSIONS	
Overall length	3 295 mm (129.7 in) ..... 8NS05, 8NT05 3 235 mm (127.4 in) 8NT75
Overall width	1 395 mm (54.9 in)
Overall height	1 780 mm (70.1 in) ..... 8NS05, 8NT05 1 925 mm (75.8 in) 8NT75
Wheelbase	1 840 mm (72.4 in)
Tread, front	1 205 mm (47.4 in)
rear	1 200 mm (47.2 in)
Load deck size, length	1 895 mm (74.6 in) 8NS05
width	1 255 mm (49.4 in)
height	1 235 mm (48.6 in) ..... 8NS05, 8NT05 1 270 mm (50.0 in) 8NT75
WEIGHT	
Curb weight	755 kg (1 664 lbs) ..... 8NS05 775 kg (1 709 lbs) ..... 8NT05 815 kg (1 797 lbs) 8NT75
Gross vehicle weight rating	1 410 kg (3 108 lbs)
Seating capacity	2 or 4 persons
ENGINE	
Type	Four-stroke cycle, water-cooled, OHC
Number of cylinders	4
Lubrication system	Wet sump
Bore	65.5 mm (2.58 in)
Stroke	72.0 mm (2.83 in)
Piston displacement	970 cm^3 (970 cc, 59.2 cu.in)
Corrected compression ratio	8.8 : 1
Carburetor	MIKUNI One barrel horizontal draft
Air cleaner	Polyester fiber element
ELECTRICAL	
Ignition timing	8° B.T.D.C. at 900 r/min
Standard spark plug	NGK BP5ES or NIPPON DENSO W16EX-U
Starter	Magnetic shift type
Generator	Alternator
Battery	12V 86.4KC (24Ah)/5HR
Headlight	12V 45/40W
Turn signal light	12V 21W
Clearance light	12V 5W
Tail/Brake light	12V 5/21W
Side turn signal light	12V 5W
Licence plate light	12V 5W
Back up light	12V 21W
Interior light	12V 5W
Meter pilot light	12V 3.4W
Main fuse	0.5mm^2 (fusible link)
Fuse box	10/10/10/15/15/15/15/15/15/10A
Rear window defroster ..... where fitted	12V 70W

ITEM	8NS05/8NT05/8NT 75
WHEEL AND SUSPENSION	
Tire size, front and rear	155R12C–6PR
front	180 kPa (1.8 kg/cm^2, 26 psi)
rear	270 kPa (2.7 kg/cm^2, 38 psi)
Suspension type, front	Strut
rear	Leaf spring
TRANSMISSION	
Clutch type	Dry, single disc
Transmission type	4 or 5 forward all synchromesh, 1-reverse
Final reduction ratio	5.125
STEERING	
Turning radius	4.1 m (13.5 ft)
Steering gear box	Rack and pinion
Toe-in	2–5 mm (0.08–0.20 in)
Camber angle	1°00′
Caster angle	5°00′
Trail	22.5 mm (0.89 in)
King pin angle	11°25′
BRAKE SYSTEM	
Type	4-wheel, hydraulic
Wheel brake, front	Disc brake (floating caliper type)
rear	Drum brake (leading and trailing)
Parking brake	Mechanical actuated on rear wheels
CAPACITIES	
Coolant	4.0L (8.5/7.0 US/Imp pt)
Fuel tank	37L (9.8/8.1 US/Imp gal)
Engine oil	3.5L (7.4/6.2 US/Imp pt)
Transmission oil	1.3L (2.7/2.3 US/Imp pt)
Differential gear box oil	1.3L (2.7/2.3 US/Imp pt)

WIRING DIAGRAM

NOTE:
Wiring harness may not include connections for some optional equipment or accessories.



WIRE COLOR

B	Black	G/Y	Green with Yellow tracer
Bl	Blue	R/B	Red with Black tracer
Br	Brown	R/Bl	Red with Blue tracer
G	Green	R/G	Red with Green tracer
R	Red	R/W	Red with White tracer
W	White	R/Y	Red with Yellow tracer
Y	Yellow	W/B	White with Black tracer
B/Bl	Black with Blue tracer	W/G	White with Green tracer
B/W	Black with White tracer	W/R	White with Red tracer
B/Y	Black with Yellow tracer	Y/B	Yellow with Black tracer
Bl/Y	Blue with Red tracer	Y/Bl	Yellow with Blue tracer
Bl/W	Blue with White tracer	Y/R	Yellow with Red tracer
G/R	Green with Red tracer	Y/W	Yellow with White tracer
G/W	Green with White tracer		